NATIONAL PETROLEUM NEWS

# Narrow Margins Quash Questionable Marketing Practices in Many States

STABLE practices are rapidly coming into the oil marketing business in many states, their adoption being forced upon those companies which have been operating under loose methods, by the narrowing spread between the tank car market on gasoline and the tank wagon market.

This is the gist of statements from the active heads of state oil marketing associations secured by NATIONAL PETROLEUM NEWS within the past few days, many of them by telegraph.

Special price concessions and favors of various sorts are being withdrawn by big and small companies alike, in favor of recognized price differentials for various classes of business, the fairness of which is apparent to the public.

This is resulting in withdrawing business from curb pumps and from small retail dealers.

Gasoline prices to the public at railroad bulk storage stations pretty well over the country are not the three and four cents under the oil company station prices of a year ago, but two cents in most cases.

The two principal disturbing factors in the retail gasoline price situation at present are:

The practice of the big companies in some sections in advancing the posted tank wagon price on gasoline, while continuing to maintain an actual tank wagon price one cent or two cents under the posted price, or at their old prices in some cases. This is reported as working a hardship on the local companies securing their gasoline supplies on marginal contracts. This situation is described as acute in Ohio. In the south refiners have recognized this condition by making adjustments with their contract customers.

The continued practice of recognizing courtesy cards on non-commercial accounts at service stations, and the selling of coupon books at prices under their face value which allows the purchaser an actual discount of as much as two cents.

New service stations being built are the result of careful selection of sites and, in many cases, are including features of the super service stations.

Statements from officials of the state associations follow.

## *Survey By State Jobbers' Associations*

**By A. J. McClelland, Manager Oklahoma Oil Jobbers' Assoc.**

THE retail marketing condition in Oklahoma has been very satisfactory since the first of the year. In fact, we have the healthiest marketing condition we have had in some time, and we have been very successful in getting our tank wagon raises ahead of the tank car advances.

On May 1 Magnolia Petroleum Co. put in a new marketing policy which eliminated the old Q.D.A. and reduced the open spread on tank wagon to 2 cents per gallon, allowing on the face of the invoice at time of delivery to legitimate resale accounts, 2 cents per gallon. This gave the service station operator a 4-cent margin, which seems to meet with very much success throughout the state.

However, we have two or three points in the state that have not as yet been successful in getting the resale business on the 4-cent margin.

There still seems to be some confusion regarding the service station discounts—this applies only in the larger cities where we have considerable competition and a few cut price dealers to contend with, but the majority of the towns are adhering to the policy adopted May 1, both service station and tank wagon.

The majority of independent dealers throughout Oklahoma buy on the open market. I do not know of any marginal contracts. However, about 15 per cent of the independents are handling the advertised brands of some of the larger marketers, but it is my information that they are buying strictly on the spot market.

Tank car market today is—9½ cents with an average 1¼-cent freight, 3 cents state tax, making the delivered tank car price 13¾ cents per gallon, with a 19-cent tank wagon less 2 cents to resale accounts, showing a gross net when sold to the resaler of 3¼ cents, and 5¼ cents per gallon when sold to the consumer from the tank wagon. Our service station spread is 4 cents with 1 cent allowance to commercial accounts and 2 cents allowance, or tank wagon price through service station, to national accounts, cities, counties and state.

The right-of-way or bulk service station sells for 2 cents under the posted price, which is our state wide tank wagon price.

This condition exists only in Oklahoma City, Tulsa, Chickasha, El Reno, Kingfisher, Enid and Muskogee.

**By W. A. Milne, Executive Secretary, Ohio Petroleum Marketers Assoc.**

ALL distributing business, under present narrowing margins is disposed, so far as the legitimate dealers are concerned, to follow the policy of the Standard Oil Co. of Ohio.

As nearly as we can estimate about two-thirds of the independent companies are still buying on contract

and one-third on the open market.

The present margin of gasoline bought on the present open tank car market, and based upon an 18-cent tank wagon price, is 3 cents under present tank wagon.

The great majority of the cut price dealers have raised their price from one cent to two cents.

Bulk railroad stations are selling from two to three cents off the posted service station price, the majority being two cents under.

There is a decided decrease in the number of new filling stations, and building is confined largely to the larger refining companies. They seem to be limiting their construction.

Few if any new curb pumps are being installed. About 65 per cent of the old curb pumps in the larger cities have been abandoned, but in the smaller towns a considerable percentage still remains. They are not doing a very great volume of business.

The big marketing companies have materially changed their policies and up to the present seem disposed to meet all prices.

The delivered tank car market has been fairly well stabilized as to price but delivery is tightening up and an impression of a decided scarcity of gasoline seems to be universal.

There does not seem to be any tank wagon market except that a decided improvement has been shown in the past few days. Prior to that time the market ranged from 15 to 18 cents.

**By R. A. Overholser, Executive Secretary Pennsylvania Independent Oil Men's Association**

THE new marketing policy negotiated by the Atlantic Refining Co. in May has done much to clear up the general situation. The principal features of this arrangement was the creation of a two instead of three-cent differential between the tank wagon and service station price. A discount of one cent under tank wagon to split accounts and two cents under tank wagon to 100 per cent dealer accounts, and the elimination of all courtesy cards.

Since then the tank wagon has advanced one cent making it 17 cents. There is no question but what the elimination of the courtesy cards has done much to clear the atmosphere. They were a general nuisance and any posted price was bound to be a fictitious one. Jobbers all over the state have welcomed their elimination and are generally holding fast to the new arrangement.

Since the one-cent tank wagon advance jobbers with marginal contracts are in a very strong position and are making more money than formerly. Distributors who have so long bought advantageously on the open market are now feeling the pinch of narrowing margins. Refiners are somewhat reluctant to sign contracts for more than 3½ or 4 cents.

On a rough guess I would say that approximately 40 per cent of independent companies are buying on the spot market. A refining price of 11.25 cents and a freight rate into Harrisburg of 1.32, which is a good average, makes gasoline cost the spot buyer 12.57 cents.

The posted tank wagon price is 17 cents but a one-cent discount for split accounts, and a two-cent discount for 100 per cent dealers, makes the actual tank wagon price average 16 cents, which leaves a margin of only 3.43 to the dealer buying on the open market.

When the one-cent tank wagon advance occurred practically all the cut price dealers advanced their price one cent also. This still leaves the railroad bulk station two cents below the posted service station price as the majority of them are selling at 17 cents or tank wagon.

Despite the narrowing margins jobbers are continuing to build additional outlets. A great many more than in my opinion is wise. Apparently independent jobbers cannot get the idea that money in the bank is a better investment than money in new filling stations. Perhaps some of this is due to the general agitation against curb pumps. The Borough Association of Pennsylvania is almost unanimous in its determination to eliminate the curb pump and every day sees fresh agitation in some city council against this means of distributing gasoline.

The two most disturbing factors in this market is an artificial tank wagon price and a more or less general slump in the July gallonage. Many jobbers have been puzzling themselves as to the cause of this falling off but it is unquestionably due to a lack of consumption. Gasoline distributors and hotel men on the principally travelled highways report that there is not the number of tourists that they anticipated.

**By J. M. McLaughlin, President Wisconsin Petroleum Assoc.**

I CAN see little change in the oil distributing business operating under the present narrowing margin of gasoline. While jobbers talk about it and, in some instances, do not install as much equipment to get a new account, a few large local companies seem to still continue spending considerable money to obtain an outlet for gasoline.

It seems that most of the jobbers feel that the gasoline stocks they purchased early in the year will carry them through until the pump price is raised. So they keep on practically in their regular way of doing business.

More independent oil companies are buying on contract now than ever before.

In this state we sell 60/62 gravity, 437 e.p. gasoline for low. The weight average market on that today, Group 3, is .0925 per gallon. Freight to this territory is .0267 making a delivery price of .1192 per gallon. The normal tank wagon price, not including the state tax of 2 cents a gallon, is 15.1 cent per gallon less the regular rebate contract. This would make the margin between actual tank wagon and tank car, plus freight to Milwaukee, .0318 per gallon.

There are 79 cut price dealers and trackage stations listed on the last survey in Milwaukee. In addition to this we have curb pumps. Practically all these dealers sell at 2 cents a gallon less than the normal price. To large consumer accounts some of these dealers give an additional cent, so as to acquire a sufficient number of gallons to get the 5-cent rebate for 15,000 gallons. For a time one of these outfits advertised 3 cents but that has been discontinued. Two of the cut price dealers have raised their price 1 cent a gallon. This took effect about a week ago. Quite a number of dealers have raised their price to normal so that, by this time, the 79 mentioned above, I believe, would be reduced to about 69. All the trackage stations sell at 2 cents per gallon under the normal market.

Some of the local companies are building additional filling stations but it is very limited and considerably below the building activity of a year ago. Those stations that are being built now seem to be of the larger type, taking care of greasing, oil draining, etc.

As a general thing we would say that building of filling stations now is by people who know nothing of the oil business but have a small piece of ground in an outlying district and are told of the large profits they can make. These poor devils get their stations built and then find out they can't make a profit running them and neither can they find anyone to lease them.

Curb pump business has reduced in volume per pump in the majority of cases.

The large marketing companies have restricted their marketing policies a little by not paying as much to lease a property and by not loaning pumps and tanks as readily as before.

Our most troublesome conditions in this market are brought about by the tank wagon rebate contract in its last bracket. If 4 cents was the maximum I believe it would substantially stabilize the price to the public, because selling at 2 cents a gallon cut would not be as inviting to filling station owners, and increased volume obtained at great expense or by secret rebates would not be as profitable as building a steady trade at normal prices.

It is my belief that the opinion the motorist has of oil merchants is most important. If he finds gasoline selling at various prices he tries to determine the best by price, appear-

ance and the actions of the oil station and its owners.

If he finds a nationally known brand selling at 2 cents a gallon less on one corner than across the street I believe he's justified in saying, "This oil business is the bunk—me for the lowest price." But if he finds only unknown brands or no name brands being sold at 2 cents less he doesn't have the confidence in them and justly so.

The last bracket of the tank wagon rebate is in my opinion mainly responsible for this.

**By George S. Allee, President, Missouri Oil Men's Association**

GASOLINE marketing conditions in Missouri, for the past two months have been the best for several years. This does not mean there are no cut rate or bargain spots where gasoline can be bought two or three cents under the regular posted service station schedule. Nor does it mean there are not some gallonage hounds whose eyes are focused on volume rather than profit.

The present narrow margins, together with the abnormal extension of credit that is always necessary to the farmer during the harvest season, is causing much uneasiness among the moderately financed, small dealers.

Approximately 75 per cent of the dealers of Missouri are buying under contract or a working agreement with their source of supply. The average tank wagon market over Missouri is 15 cents, exclusive of tax, with an average freight rate of 2 cents per gallon from Group 3. Based on today's market, this allows a margin of approximately 3¼ to 3½ cents for the dealer, which must carry all his overhead, Q.D.A.'s and profit, if any.

The few bulk railroad stations in the state are selling at 2 cents below the regular posted service station price. There was much anxiety among the cut rate dealers previous to the recent advance and, without exception, they availed themselves of the relief offered.

Building of new service stations over the state has practically ceased, as also has the installation of new bulk plants. The curb pump, while still in existence in some cities and towns, is rapidly being eliminated by ordinance and crowded out by modern service stations.

We believe the major companies, with an exception or two, readjusted their quantity agreement and are operating with a profit making slogan rather than for a gallonage record.

**By G. A. Primm, Secretary, Illinois Petroleum Marketers Association**

IN GENERAL the present narrowing spread on gasoline has to a considerable extent corrected bad conditions prevailing on tank wagon sales, but has not to any noticeable extent corrected unethical service station marketing.

Perhaps 50 per cent of jobbers' requirements are under contract or franchise agreement and those not contracted are more or less anxious to protect themselves on some positive marginal guarantee. The present margin under actual tank wagon market will average 4 cents to 4½ cents on spot buying and 4 cents on contracts.

Cut price dealers have, to some considerable extent, corrected their marketing policies and are disposed to operate more ethically. Dealers operating at cut prices usually sell at 2 cents under the normal posted market.

Some few new stations are being built, but as a whole dealers are prone to cancel any expansion program due perhaps to narrowing margins.

Small curb pumps have in many instances been eliminated where gallonage sales have not warranted dealers tying up capital in equipment and also for the reason that dealers are cancelling concessions to smaller resale accounts.

The larger marketing companies have not changed their regular marketing policies other than to ignore to some extent the petty price cutting tactics.

**By H. M. Wilson, President, North Dakota Petroleum Association**

APPROXIMATELY 70 per cent of the independent companies in North Dakota are operating on some marginal contract arrangement, the other 30 per cent are operating on an open market, some with marginal protection and others not. The western half of North Dakota has been at a disadvantage owing to the freight rate situation, as the tank wagon market is based on shipments from Casper and the freight differential has been from nothing up to 2 cents per gallon over Casper from Group Three.

With the Group Three market 8⅞ cents, the freight to Minot a trifle less than 5⅜ cents from Group Three makes the cost 14.22 cents per gallon and our tank wagon market is 17.9 cents leaving approximately 3¾ cents per gallon margin. East of Minot the margin would be better and west of Minot a trifle less. There are few cut price dealers in the state.

Bulk railroad stations are selling at the regular price. Some new stations are being built by oil companies but not very many. Curb pumps are not being cut off to any extent. The big marketing companies have not changed their marketing policies, with the exception of eliminating the dump quantity discount and reestablishing markets on the regular tank wagon basis when the recent advance of 1 cent per gallon was made on gasoline and kerosene.

The delivered tank car market in our territory is based primarily on the tank wagon market at the particular station where delivery is to be made, with the refineries taking advantage of a major portion of the freight differential between the Wyoming price and the Group Three price.

One of the major marketing companies has permitted garages to pool their purchases in order to get in under the higher brackets on the Q.D.A.

*(Concluded on Page 31)*

## Coming Meetings

**Illinois Petroleum Marketers Association, Soengataha Country Club, Galesburg, Ill., Aug. 16.**

**Ohio Petroleum Marketers Association, Commodore Perry Hotel, Toledo, O., Sept. 5, 6, 7.**

**National Petroleum Association, Hotel Traymore, Atlantic City, N. J., Sept. 19, 20, 21.**

**North American Gasoline Tax Conference, Peabody Hotel, Memphis, Tenn., Oct. 1, 2, 3.**

**National Safety Council, Petroleum Section, Hotel Pennsylvania, New York City, Oct. 1 to 5.**

**Big Four State Jobbers, Kansas City, Mo., Oct. 3, 4, 5.**

**American Oil Men's Association, Hotel Statler, Detroit, Mich., Oct. 9, 10, 11.**

**International Petroleum Exposition, Tulsa, Oct. 20 to 29.**

**Petroleum Refiners Division National Association of Credit Men, Chicago, Nov. 4, 5, 6.**

**American Petroleum Institute, Stevens Hotel, Chicago, Dec. 4, 5, 6.**

## Weighted Average Prices Oklahoma Market

**On Feb. 6, 1928, National Petroleum News adopted the policy of publishing weighted average prices on the four more important gasolines in Oklahoma, instead of a range in prices. These weighted averages together with the number of cars of each grade sold, as of Monday, Aug. 6, are published below. The figures are not available for publication in the refinery market table on page 90 of this issue.**

| | Total Cars | Weighted Average |
|---|---|---|
| 58-60 U. S. Motor, 437 e. p. | 110 | 9.5227 |
| 60-62, 437 e. p. | 9 | 9.7361 |
| 60-62, 400 e. p. | 3 | 9.9167 |
| 64-66, 375 e. p. | 4 | 10.3438 |

**Note: Above prices are in cents per gallon, f.o.b. Oklahoma refinery in tank car lots.**

# Accounting Methods for Refineries

*Article One*

## What Proper Methods Can Do for the Plant and What Cannot Be Expected

By Henry W. Ralph

THE ultimate purpose of these articles is to aid successful plant operation. Successful operation for an organization is practically impossible without a successful use of the two tools, "Accounting" and "Procedure." The reason that "Accounting" and "Procedure" are discussed is to assist in making them of greater service.

Any person that is interested in improving plant management will have to go far beyond the scope of these articles. These articles may contain some features which he can successfully adapt or adopt; but their real value will lie in their suggestiveness. The only sure way to win maximum profits is to have as much information as anyone else in a similar position—or more; and then to make the correct decisions on the basis of those facts.

Sometimes conditions in an industry are such that profits are practically impossible of price fluctuations. If you know the facts you can probably take advantage of a reversal of those conditions some time later. Unless you do know the facts you may imagine that the trouble is due to price conditions when it is in reality due to your own organization.

The key to successful management is the developing of intelligently cooperated effort throughout the entire organization. There is no better procedure to insure that than one which causes every employe to "plan his work" and then "work his plan." Unless you have a set-up which lends itself readily to comprehensive and intelligent forecasting the means of coordinating the planning is missing; and if plans are not coordinated you can be very certain that efforts will not be.

The best way to obtain satisfactory performance of work or get the maximum output is by establishing standards of performance. This principle has been known for a long time and its field of application is being continuously widened.

It is being used in a larger number of manufacturing operations; it is being successfully used in many clerical operations; it is in successful use in the selling field; and there are many successful applications in the management field.

If successful management is the most important factor in profitable operation; and the establishing of standards of performance is an important factor in obtaining successful management, it follows directly that there is no more profitable field for the expenditure of thought than the development of such standards.

Therefore, no job of organization may be considered successfully completed until there have been created for all positions that are regular, a definite procedure which will enable the incumbent to know definitely what accomplishments are expected from him and enable him to prove currently how his accomplishments measure in relation to that standard.

In the petroleum industry and in other industries, there are few questions asked by stockholders, directors, or even executive officers concerning efficiency of operation if the result has been a satisfactory net profit that compares favorably with previous years of the same organization. When profits grow appreciably less, questions are in order; and if they are replaced by losses there comes a time when the questions become insistent and answers must be found.

The first question that comes to mind when an organization is being analyzed—whether by an owner, a consultant, a banker, or some other interested party—is, "What caused the loss?" It will be impossible to answer such a question and prove the answer is correct unless the records of the business transactions for the period in question have been designed to supply such answers.

WITHOUT stopping to enumerate a long list of reasons that might lead to unsatisfactory profits it may be safely asserted that satisfactory profits can be earned in the petroleum industry, only if—

(a) the cost of transforming certain raw materials purchased at market price into saleable products is not higher than is warranted by the increased value of the products; i.e. the market price the products can be sold for—if, in other words, manufacturing is profitable.

(b) the cost of consummating sales and making delivery of products is not higher than the increase in value of the products above their value at the point of manufacture—if, in other words, selling activities are profitable.

(c) inventories of raw materials and products have been accumulated, utilized and sold without suffering losses because of market declines—in other words, if purchasing, manufacturing and selling have been properly coordinated and trading has been profitable.

It is true that the financial background of a company may be very poor and impose unusual burdens that are beyond the earning ability of the company; or that the organization may be top heavy; or the fixed investment out of proportion as compared with competing organizations.

The only way such a question can be answered intelligently is by comparison with similar organizations. In the preceding discussion, and in the discussion that follows, it has been assumed that the overhead burden to be carried is not out of line.

IF A refiner wishes to know the reason for his failure to make satisfactory profits he must set up some separation of these three activities in his organization—even if he does the buying and selling himself, and is in control of the manufacturing. If he is unwilling to do this he will be unable to know where his difficulty lies; and whether steps can be taken to overcome it.

When he solves this problem satisfactorily he will find many others to be solved. He may solve them all and still not make a satisfactory profit—but he will then be able to know at what point or in what department he did not make a profit, and the reason why; and he can make plans to eliminate the unfavorable conditions in the future.

In that last sentence we have stated a particular action that is directly in line with a major policy that all good business men should be following consistently.

The successful operator in any line of business is the one who, on the basis of previous accomplishments and other information, builds a definite plan and then proceeds to carry out his plan.

There may be a genius here and there who can do this successfully without an adequate record of his plan, adequate record of his transactions and a comparison of his results with his original plan. To such in-

dividuals the proper arrangement of a business procedure and the detailed outline of forms which will serve to keep such procedure fairly uniform and simple will be a mere detail, even an unnecessary detail.

For the ordinary business man, however, such records are the framework underlying successful operation. In fact, successful carrying out of plans by an organization of any size is dependent on the existence of a satisfactory routine for the accomplishment of many operations which are being continuously repeated—being different only in such details as quantity, time or place.

The question that continuously arises is the degree to which such control of procedure shall be carried. That degree is most desirable which will produce the maximum of beneficial change—provided that at all times in the process of developing such procedure the cost of making such change shall be less than the benefit which will be derived.

The exact point to which it shall be carried will be dependent on several factors. Of these, the most important is the size of the organization; and the second the capability of the executives of the corporation. The smaller the organization the less should be the detail, in general. It is obvious that there is no advantage to be derived from building up an analysis of operations which is beyond the power of comprehension of the man who is responsible for the operation of a department.

THE best guide for a refinery owner as to the degree to which he shall carry his expenditure for cost accounting, the degree to which he shall budget his departments, the amount of forecasting future operations he shall do, is the experience of the most successful organizations. If he makes a genuine effort to do at least as much as his successful competitors of relatively equal size, or successful organizations of about the same size in other industries, he will be very unlikely to overdo for the reason that the definite procedure that has been codified and put into formal form in these successful organizations is always several steps behind the brain that visualized the advantage to be derived from such definite procedure and the brain that is currently developing more refined and precise methods of controlling operations.

It is, of course, always possible for an organization to hire a specialist to analyze operations and manage a business for a stipulated sum. There is no guarantee, however, that the result will be profitable. A much more logical procedure is to realize that any outsider must have certain defi-

SEVERAL refinery operating and sales executives, approached by NATIONAL PETROLEUM NEWS with the question as to what was most necessary for future financial success of individual refining companies, said, in effect:

"A definite measure at all times of our operating position.

*HENRY W. RALPH*

"Under conditions of increasing competition and continuously narrowing spreads, those plants which have the facilities to discover their own weakest points—those parts of their operations which are carried on at unduly high costs—and can take steps to correct them are the ones that will earn maximum profits in coming years."

With the problem thus clearly stated, NATIONAL PETROLEUM NEWS arranged with a man it deems well qualified by experience to write for it exclusively a series of articles on "Proper Accounting Methods for Refineries."

What Henry W. Ralph, author of this series, will do in his articles is to give to the individual refining company, large or small, whether it operates one plant or several, a means for having at all times "a definite measure of its position."

A method of presentation has been selected which will allow the individual plant to make direct application of some particular idea from these articles, or some particular section, to its own operations.

Among those subjects which will be discussed in relation to accounting for the refinery will be: methods for determining, and keeping records up to date, cost of stock, cost of production, cost of labor, cost of supplies, and purchase and receiving procedure.

Operating records and cost records will be given for filter plant, crude stills, re-run stills, cracking plant, wax plant, compounding plant and packaging department.

In accepting this assignment from NATIONAL PETROLEUM NEWS, Mr. Ralph wrote:

"It is essential that, for practical purposes, the information necessary for basic records and for successful operation of the plant be developed with the minimum of clerical effort and the maximum of operating benefit.

"Most of the organizations which are conspicuous today by reason of their size and high earning power achieved that position because of what might be termed 'scientific decentralization.'

"A condition of 'scientific decentralization' exists when typical positions in an organization have been adequately analyzed and the initiative of each incumbent stimulated by the establishment of a proper incentive.

"This condition rarely exists except in those organizations where records of performances are accurately and faithfully maintained and there is available for each person who operates without direct supervision a precise knowledge as to what his task is and also how successful he is in accomplishing his task.

"Not only should the subordinate be able to know how successful he has been by means of the same reports and records that guide his superior, but he should know it first."

Mr. Ralph is not unknown as a writer on refinery accounting methods. He was the author of articles on "Accounting—a Service to Management" appearing in NATIONAL PETROLEUM NEWS in 1925 and based on his work for the Indian Refining Co.

He recently left this company to become associated with H. S. Bell, refinery consulting engineer, New York. He has also been active in the work on uniform accounting methods carried on by a special committee of the National Petroleum Association.

nite information before he can make recommendations which will lead to improvement; and to take steps so that the method of recording data will be such that information of this kind is developed automatically and currently.

Secondly, to make certain that particular individuals who are already connected with the organization are trained to use such information to the best advantage.

To advise the management of an organization already losing money to add to its burdens by engaging a competent consultant seems on its face unreasonable. However, if conditions are sufficiently serious so that a banker must intervene, that is the first step he will take.

Other industries, or sections of industries, have faced the same problem. If the refiner is not too proud to take a lesson from these industries, although they do not compare in power and importance with the oil industry, he can combine with his nearest competitors in forming a local committee which can hold regular meetings for the purpose of taking up those problems that are most pressing from time to time.

A committee of this kind with a full appreciation of the importance of the work they are doing and the relative value of time in such work should not hesitate to employ a qualified consultant to aid them in getting the correct solution more quickly. The work done through association with a consultant would not necessarily be more effective, but the chances are good that it would be, and it would be accomplished much more quickly by reason of the preferred attention it would receive.

REGARDLESS of the competence of specialists and their ability to handle a particular situation, it will always be true that the profits of an organization are dependent on the ability of its executives. A specialist's real service is educational. Most satisfactory results will be obtained from a specialist who is able to build up certain individuals in the organizations which he serves so that, with their background of knowledge and training, they will keep making those minor adjustments of routine which are necessary to keep manufacturing and selling operations in line with current developments. The length of time that a consultant should be thus employed will depend on the caliber of the staff of the organization and the attitude of the management towards a program of flexibility and continuous change.

# Gasoline Gallonage Increase In California 5.5 Per Cent

LOS ANGELES, Aug. 4

ACCORDING to tax figures for the second quarter this year in California on motor fuel, an increase of almost 15,000,000 gallons was shown over last year. The report shows that the major companies made a slower rate of gain than the independents.

The eight leading, or so-called major companies, reported sales of 248,200,929.2 gallons in the second quarter of 1927, against a total of 20,173,950 gallons for 15 small or independent refiners. Major companies reported 241,424,447.9 gallons for the second quarter this year, while the 15 small refiners reported 41,000,051 gallons over double their 1927 gallonage.

Of the eight leading companies, four showed losses, comparing the second quarters of 1927 and 1928, while four made gains. Losses were shown by Standard, Shell, Union and Richfield, while Associated, The Texas Co. (formerly California Petroleum), Pan American and General Petroleum made gains.

Richfield recently took over the Pan American and in the future the sales of the two companies will be combined, taking second place away from Shell Co., if second quarter figures are used as a basis.

Total gasoline sales the past fiscal year show an increase of about 5.50 per cent in California when totals for quarters this year are compared with previous similar periods, a smaller gain than expected.

Total tax figures in gallons by quarters were:

| | |
|---|---|
| 1927 | |
| First quarter | 218,816,493 |
| Second quarter | 270,333,079.2 |
| Third quarter | 273,763,669.6 |
| Fourth quarter | 254,778,421 |
| 1928 | |
| First quarter | 251,105,567.9 |
| Second quarter | 285,412,777.2 |

The following table gives figures for eight major companies and 15 independent companies for the second and third quarters of 1927 and first and second quarters of 1928 for comparison purposes:

## How California Consumption Grows

| Company | Quarter ending June 30, 1927 | Quarter ending Sept. 30, 1927 | Quarter ending Mar. 31, 1928 | Quarter ending June 30, 1928 | Total |
|---|---|---|---|---|---|
| Standard Oil | 69,840,577 | 70,513,256.9 | 56,346,822.6 | 65,300,058.6 | 262,000,715.1 |
| Shell Oil Co. | 50,948,235 | 50,570,587 | 43,225,750 | 42,225,778 | 186,970,350 |
| Union Oil Co. | 36,882,280.3 | 37,565,409 | 34,341,419 | 28,740,062 | 137,529,170.3 |
| Richfield Oil | 34,963,678 | 33,683,447 | 27,653,458 | 31,838,283 | 128,138,866 |
| Associated Oil | 24,136,083 | 22,213,978 | 20,051,083 | 25,346,150.2 | 91,747,294.2 |
| The Texas Co. | 14,107,481 | 14,615,194 | 15,858,764 | 16,947,503 | 61,528,942 |
| Pan American | 9,014,352.9 | 7,410,752.9 | 8,998,563.7 | 16,605,765.1 | 42,029,434.6 |
| General Pet. | 8,308,242 | 8,704,648.5 | 8,373,552 | 14,420,848 | 39,807,299.5 |
| Total | 248,200,929.2 | 245,277,273.3 | 214,849,412.3 | 241,424,447.9 | 949,752,062.7 |
| Marine Refg. Co. | 5,277,610 | 5,408,103 | 5,986,128 | 6,769,802.5 | 23,441,643.5 |
| Wilshire Oil | 4,015,321 | 5,722,968.5 | 5,034,650 | 6,938,055.5 | 21,710,995 |
| Western Oil & Ref. Co. | 2,125,058 | 3,007,167 | 4,210,763 | 6,064,510 | 15,407,498 |
| Hercules Gas Co. | 1,870,541 | 2,223,787 | 2,307,202 | 2,321,395 | 8,722,925 |
| Seaboard Pet. | 1,677,117 | 2,078,079 | 2,992,795 | 2,518,348 | 9,266,339 |
| MacMillan Pet. Prod. Co. | 1,451,252 | 1,969,169 | 3,072,674 | 3,590,515 | 10,083,610 |
| Rio Grande Oil Co. | 976,053 | 582,156 | 2,094,393 | 2,284,723 | 5,937,325 |
| Seaside Pet. Corp. | 910,509 | 978,748 | 2,065,196 | 2,090,241.5 | 6,044,694.5 |
| Gilmore Oil Co. | 805,305 | 1,154,982 | 431,880 | 530,925 | 2,923,092 |
| U. S. Refg. Co. | 409,294 | 869,225 | 237,457 | 474,112 | 1,990,088 |
| Lake View Oil & Refg. Co. | 225,624 | 529,020 | 607,520 | 616,802 | 1,978,966 |
| Export Refg. Corp. | 168,834 | 428,345 | 921,837 | 703,172 | 2,222,188 |
| Navy Oil Co. | 150,966 | 54,717 | 22,027 | 87,911 | 315,621 |
| Hancock Oil Co. | 110,466 | 1,813,577 | 3,080,948 | 4,563,756 | 9,568,747 |
| Edington-Witz Refg. Co. | ..... | ..... | 210,856 | 1,445,782.5 | 1,656,638.5 |
| Total | 20,173,950 | 26,820,043.5 | 33,276,326 | 41,000,051 | 121,270,370.5 |

Companies listed above are arranged as per standing at June 30, 1927.

### Four-State Meeting Arranged

TULSA, Aug. 6.—The Four-State convention of oil jobbers of the middle west will be held in Kansas City on Oct. 3, 4 and 5, according to an announcement by George S. Allee, president of the Missouri Oil Men's Association. It will be the third annual meeting of oil men of Kansas, Missouri, Iowa and Nebraska.

The Kansas City Oil Men's club has appointed a number of committees to prepare entertainment for the visiting oil men and the ladies.

# Tongue of Flame From Steamed Rerun Still Leaps 100 Feet, Burns 67 Men

By Paul Truesdell

N. P. N. STAFF WRITER

LAWRENCEVILLE, Ill., Aug. 3 A TONGUE of flame flashed out of the open manhole of a steam-filled rerun still at the plant of the Indian Refining Co., leaped 100 feet across the refinery yard and burned 67 men. Thirty-six were seriously burned. Twenty-one have since died and one or two others seem to be near death. Property damage is less than $100. This happened the morning of Aug. 1.

The accident was freakish and cannot be positively accounted for, according to Dr. Frank Fritts, executive vice-president of the company. Plant rules were followed to the letter in the handling of the still previous to the blast. There was no deviation from methods that have been used in the operation of stills hundreds of times in this plant. The explosion followed a small fire, similar to those that occur in every refinery from time to time, and the fire had been extinguished before the explosion occurred. Thoroughly experienced men were on the job.

The still from which the searing blast came was one of a battery of 12 rerun stills, combination fire and steam. The stills are fired interchangeably with waste gases from plant operations and fuel oil and have conventional steam spiders in the bottom. Ten of the stills are of 750 barrels capacity each and two are 1000-barrel stills. The battery is used for rerunning cracked distillate from the Dubbs and Cross cracking units. The Cross battery consists of seven 1000-barrel a day units and one 2000-barrel unit. The Dubbs plant consists of four 500-barrel a day units.

**The accompanying article was written by Mr. Truesdell from information gained first hand by inspecting the Indian Refining Co.'s still battery where the accident occurred and talking with company officers. He went to Lawrenceville very shortly after reports of the accident were received at Cleveland.**

The cracked distillate before rerunning averages about 96 initial and 440 to 445 end point.

The rerun battery is run batch. In fact, it is merely a row of stills and not a battery because the stills are run individually and not in series. Each of the 750-barrel stills is equipped with a small hollow knock-back tower and each of the 1000-barrel stills has a modern bubble tower.

Each of the smaller stills, in starting up, is charged with about 500 barrels of pressure distillate and is run down to 400 end point, the tower condensing the heavier ends of the vapors and refluxing them back into the still. When the stream in the tailhouse shows 400 end point, the still is shut down and the bottoms are pumped into one of the two 1000-barrel stills.

The bottoms from the smaller stills are run down in the big stills and the vapors fractionated in the bubble towers, the stream passing overhead from the bubble towers being a 437-end point gasoline. The bottoms from this distillation are collected, rerun to remove excessive sulfur, and then blended into the charging stock for the Cross cracking units.

AS SHOWN in the accompanying line drawing, the stills in the battery are numbered from the right, the two 1000-barrel stills on the extreme left end being 11 and 12. Here is the story in sequence as it was told me by Dr. Fritts and developed at the coroner's inquest. I had gone to the plant to try and learn the cause of the disaster and to see whether it offered any lessons which refinery operating men generally might use to prevent other similar tragedies.

About 7 o'clock, Tuesday night, July 31, Pearly Wells, refinery superintendent, noticed that No. 10 still in the battery had sprung a leak and oil in a stream the size of a man's thumb, was dropping down into the furnace. He at once gave orders for the fire to be turned off and the still

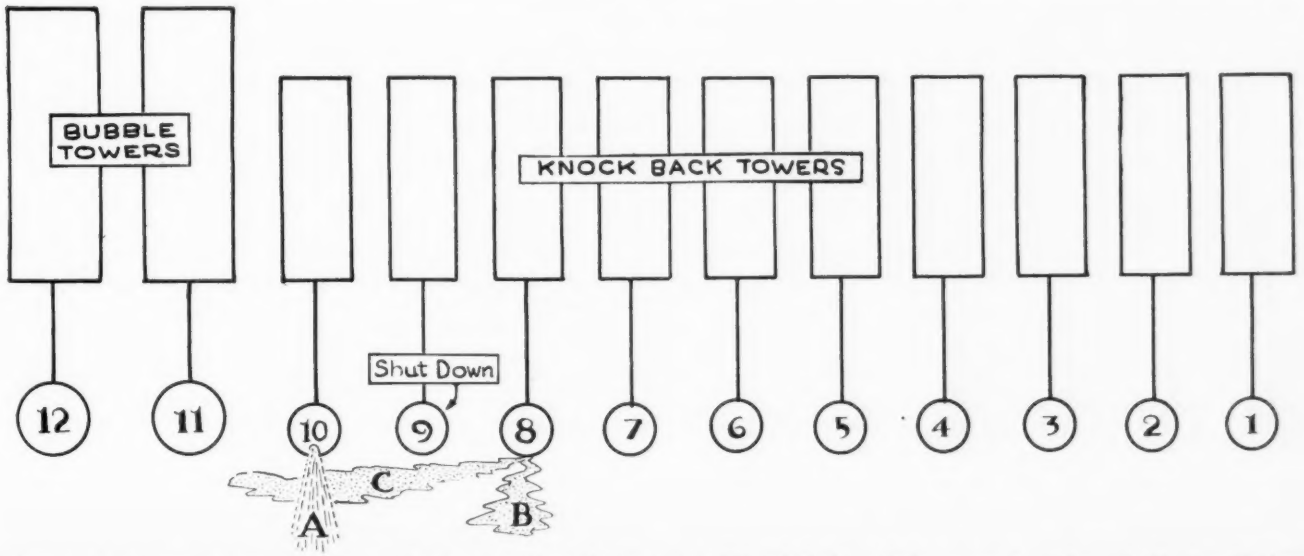



*Diagram of the rerun battery at the Indian Refining Co. Plant No. 10 is the still in which the explosion occurred. A shows the blast coming from the manhole in the end of the still, B the flaming stream of oil that caused the turning in of a fire alarm, and C the secondary stream the heat from which is thought to have vaporized a small amount of pressure distillate in the steam-filled No. 10 still and caused the explosion*

pumped out and steamed, preparatory to cleaning out and patching the fire sheet next day. His orders were followed.

The fire was shut off, the still pumped out and steam turned into it. This is the usual practice at the refinery when a still is shut down. The steam was at about 90 pounds pressure which means about 300 degrees F. temperature. The still was steamed for about 14½ hours, the steam going overhead through the vapor lines and presumably carrying with it vaporized, volatile parts of what oil remained in the still.

AFTER the steaming period, around midnight, the steam was turned off and the still "blanked off," that is steel plates bolted into the pumping in and pumping out lines between the flanges, to prevent any oil or vapor from getting into the still from outside.

This being done, the stillman, according to regular practice, removed the manhead on top of the still. Steam of course came out, and the stillman smelled it for any odor of gasoline. He could detect none. About half an hour later he also took off the plate on the manhole in the front end of the still.

Then the still stood there, steam escaping from the two manholes, waiting for the time when it should cool off enough so that a man could go in, sweep out any heavy ends that might be left on the bottom, scrape off the carbon and make it ready for welding a patch over the leak.

About 4 o'clock in the morning, the stillman discovered that No. 8 still had sprung a leak (No. 9, between 8 and 10, was shut down). Oil escaped from this leak faster than it could be burned in the furnace and it ran in a flaming stream down across the yard in front of the battery. There was no particularly great danger in this because there was nothing much in the way of the stream, but the stillman at once turned in a fire alarm.

The entire plant fire brigade, both those men on duty and those who were at home, off duty, responded, together with a number of townspeople, the refinery being the town's leading industry. Altogether, there were close to 100 people, firefighters and sightseers, in the plant.

The fire brigade started the Foamite mixer and pumping engine and brought the Foamite hose to the scene of the fire. The stillman, of course, had previously shut off the fire under No. 8 still and started pumping out its contents. While the firefighters turned the Foamite on the main stream of fire, oil continued to leak in driblets from the still, flaming of course, when it hit the air, and made a secondary small stream of fire that ran along diagonally in front of the setting of No. 10 still.

The Foamite equipment worked perfectly and in 20 or 25 minutes the fire was out. A large group of firemen and sightseers were standing, bunched together, 50 to 100 feet from the front of the still battery, resting from their labors and surveying the scene. Another group was bringing up a second Foamite hose in case it should be needed.

That was the situation when, at 20 minutes to 5, there was a slight puff, not enough noise to make men in other parts of the plant pay any attention to it— and the flame leaped out, scorching the two closely huddled groups of men. It lasted only a fraction of a second. The injured were given first aid by the plant doctor who called eight other doctors and a number of nurses to his aid. Then they were sent to hospitals.

Dr. Fritts had been out of town and arrived at the office about 8 o'clock on the morning of the accident. He ordered everything possible done for the sufferers.

His theory of the accident is that the burning stream of oil that ran past the setting of No. 10 still from the leak in No. 8 heated up a small pocket of oil that had been left on the bottom sheet of No. 10 sufficiently to vaporize it and, escaping from the manhole, of course, the vapor flashed when it came in contact with the air.

How to prevent such accidents in future?

THAT is a hard one. Ninety pounds is about as high pressure steam as is usually available in refineries and 300 degrees F. evidently is not hot enough to vaporize and drive off all the light ends of a 440-end point distillate. Higher pressure steam and consequently higher temperature might do this.

Smelling of the steam is about the only test for gasoline vapors remaining after a still has been steamed and it is likely that refinery workers' noses become more or less immune to gasoline smells from long familiarity with it.

However, there are two things that Dr. Fritts is doing at the Indian plant that might help to avoid similar accidents in the future in other plants as well. First, he thinks it is important that stills be set so that the bottom slopes considerably toward the opening of the pumping out line, so that the still will be entirely drained by the pump.

He is having all the shell stills in the plant examined with this in view and those that do not have a sufficient slope will be reset so they do. It is likely that the stills in many plants were set rather hit or miss in this regard. Another thing is to keep depressions out of the still bottoms. If there are even small dents, these will tend to collect oil and may furnish the makings for an accident.

Everybody knows the danger of a considerable bag or belly in a still bottom but it may be that the importance of small depressions in some plants has been overlooked.

Then, too, it is always unsafe for a group of men to bunch together in front of a still battery, particularly when there is or has been a fire in progress.

## Iowa Governor Opposes More Gas Tax

DES MOINES, Ia., Aug. 2.—Governor Hammill of Iowa recently threw a crimp into the political plans of a group of state officers and legislators seeking re-election on a platform of "increased gasoline taxation." The Iowa tax is 3 cents a gallon already and the governor says that is enough. In a recent issue of a Des Moines paper the governor was quoted as follows:

"The secondary road system should involve no increase in taxes, neither direct property tax nor a higher direct tax, such as a gasoline levy. It is believed we are now raising sufficient funds for the secondary roads. Provision should be made for a more efficient and comprehensive administration of the funds now raised for secondary roads to the end that greater permanent results will be derived."

## Takes School "Exams" In Airplane

MILWAUKEE, Wis., Aug. 4.—What may be set down as the "longest" examination ever undertaken is that of Francis H. Casey, purchasing agent of the Wadhams Oil Co. here, who recently traveled 1000 miles in an airplane while writing answers to examination questions.

While on a visit to New York, Mr. Casey received a hurry-up call to return to Milwaukee. He hopped off in an airplane. Having recently received examination papers from the LaSalle Extension University of Chicago from which he is taking a course in service station salesmanship, he wrote his answers while traveling a mile up in the sky over the Alleghenies and Lake Michigan.

"I think I may lay claim to several world records on this flight," Mr. Casey said. "I feel confident I am the first school student who ever took an examination a mile up in the sky."

# Radio Tourist Bureau Builds Sales As Well as Good Will

*This is the radio truck of the Pierce Petroleum Co. which goes around to communities broadcasting speeches, dance music, baseball scores and entertainments*

By J. C. Chatfield
N. P. N. STAFF WRITER

ST. LOUIS, Aug. 2

THE Pierce Petroleum Corp. has made the radio a real builder of actual business as well as good will the last few months, while it has been seeking to promote the Ozark mountains of Arkansas and Missouri as a national playground. Since undertaking the radio program the company has been pulling an average of 1000 inquiries each week from motorists looking for a pleasant vacation tour.

The company is following railroad travel promotion practice in its advertising of the Ozarks although the radio is being used more generally than newspaper advertising to obtain inquiries. Every radio program devoted to the Ozark region requests inquiries and promises a booklet which gives definite information about where to go and what to see on a motor trip. In addition motorists are promised maps outlining special short trips if they call at any Pierce station.

These trucks are equipped with eight Western Electric loud speakers and with the latest type Kennedy receiving sets and Western Electric amplification units, and are mounted on Chevrolet chassis.

The radio equipment is suspended in such way as to relieve the sets from shock that might occur in transportation, being mounted on floating platforms. These radio sets are of the highest power used by the public address systems, and are able to pick up any stations that may be on the air from coast to coast.

The trucks are also equipped with phonographs and a large supply of records, all of which is also amplified through the amplifying units.

The trucks are also equipped with microphones carrying long extension cords, thereby enabling speakers to make public addresses through the amplification system, as well as any announcements that we care to make from time to time, in addition to those which are received over the air.

Ozark programs are broadcast through station KMOX at St. Louis from 9 to 9:30 each evening except Saturday. Half of the program is devoted to music and half to Ozark promotion talks. An important feature of the program every night is the broadcasting of information for anglers. Keith McCanse, chief game and fish commissioner of Missouri, furnishes the Pierce company with tips as to which streams are muddy and unsatisfactory and in what districts conditions are right and fish are biting.

A second feature which yields benefits to the company from a number of angles is a nightly talk by some citizen of the Ozark country regarding his community. Each speaker describes his own district in glowing terms and tells of its history and advantages. Broadcasting expense is paid by Pierce, individual communities bearing only the traveling expenses of their speakers to and from St. Louis.

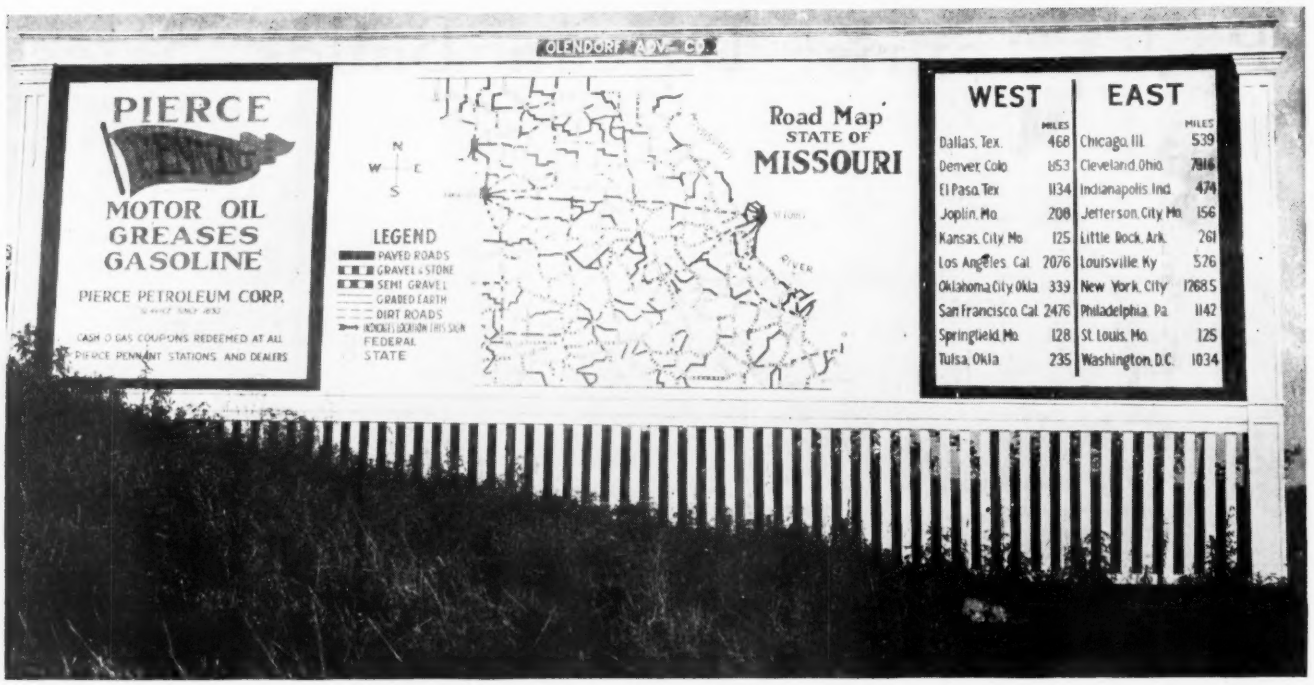
Arrangements for individual speakers are made mostly by H. S. Turner, assistant manager of sales, who is spending most of his time in the Ozarks. Going into a new community Mr. Turner calls on the Chamber of Commerce, the mayor and several prominent men of the town, such as officers of Rotary or Kiwanis clubs. Invariably he makes it a practice to make these calls in company with the Pierce agent in that community.

All calls are made as short as possible. After an introduction by the Pierce agent, Mr. Turner explains that his company is trying to promote motor travel into the Ozarks through its radio programs to increase its own business of serving gasoline and oil to the visitors. He points out that the programs are a success in bringing persons into the district and that the various communities are benefiting as much as the Pierce Petroleum Corp. because of the money they are spending while passing through. He then offers the microphone to some speaker from the city for one evening.

Often Mr. Turner is invited to speak before groups of business men who have been called together to select a speaker.

It will be obvious to the reader that the benefits from its broadcasting are not confined to the business of serving tourists brought in by the programs. Pierce agents are getting acquainted with business leaders in their communities and are going about their work of selling Pennant products with more enthusiasm. They have a new talking point in the way in which their company is boosting the Ozarks.

*THIS is the second article by Mr. Chatfield on methods of developing gasoline and oil sales used by the Pierce Petroleum Corp. The first article appeared in the August 1 issue.*



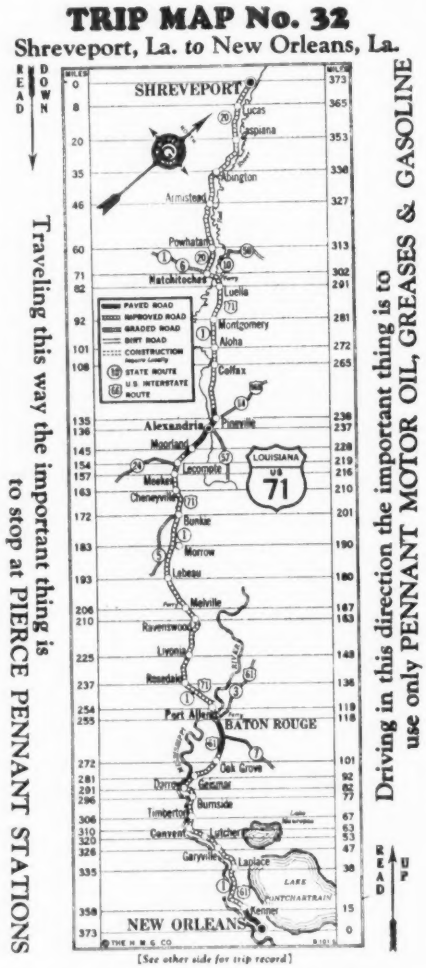

*State road map billboard on Highway 66 between Tulsa and St. Louis. This type of road sign has attracted much attention from motorists, bringing one complaint that motorists stopped to study signs and blocked roads*

It is obvious also that when a local speaker is to talk over KMOX at St. Louis every radio in that community will be tuned in at 9 o'clock to hear what is to be said about the home town and vicinity. This in itself is good local advertising for Pierce.

Almost invariably Mr. Turner has found local persons enthusiastic about results of talks when he has called back a few weeks after the program. Business men have told him of money they have made through serving motorists who said they came as a result of the radio talks.

There are few roses without their thorns and that is true with the management of the radio talks. The home town orators usually want to talk about the number of churches and schools in their community, the number of miles of sidewalks and how many drug stores are doing business. Sometimes it is a job to prove to the orators that drug stores, churches and schools are to be found in any town in the country and that benefits will accrue only if the talk deals with the unusual features which will draw tourists. All talks must be written down and edited before they are broadcast.

In addition to its Ozark programs the company broadcasts the baseball game from Sportsmen's park every afternoon whether the Browns or Cardinals are at home. Advertising in connection with this broadcasting service is the usual unobtrusive announcement that the service is through the courtesy of the Pierce Petroleum Corp. Each evening at 6 o'clock the company goes on the air for a few minutes with a sport summary to give scores of the two major leagues, the Three I league and the American Association.




*Railroad time card type of trip map designed for the convenience of motorists which is being used by the Pierce Petroleum Corp. in the Southwest. The company has 50 different trip maps. The reverse side of the card gives cumulative mileage between the two destinations, distance between towns on the route and carries space for arrival time at each town to be written in*

With two winning teams, St. Louis is more than ever a fan town this year. Enthusiasm for the Browns and Cardinals extends well through Missouri and into some adjacent states.

To capitalize further the broadcasting the company has mounted two portable receiving sets on trucks which are available for picnics or other large gatherings to furnish music, baseball results or aid speakers by amplifying their voices through the loud speakers used with the trucks.

These trucks are in great demand, being booked about a month in advance. For example both were on hand on June 9 when the new Champ Clark bridge across the Mississippi was dedicated at Louisiana, Mo. One was placed on each bank of the river to amplify speeches made by notables to the 12,000 persons that attended the exercises.

June 25-27 one truck aided the Maplewood Business Men's Association to entertain about 10,000 persons on a three-day picnic. At a reunion of Frisco railroad veterans at Springfield June 18 and 19 one truck played to a huge audience. Thus far the smallest crowd where a truck had been sent, consisted of 550 persons.

Pierce billboard advertising in the southwest this year consists of huge road maps of the various states erected at entrances to towns and at the intersection of principal highways. An accompanying photograph shows one of the Missouri road maps on Highway 66 between Springfield and St. Louis. The company earlier in the year received a complaint regarding these maps from the state

highway department of Missouri. The department stated that motorists stopped to examine the signs and had a tendency to block traffic. This was taken as evidence by the company that the signs are getting attention.

In addition to the large road maps the company has lined principal roads in the southwest with 10,000 small metal signs showing miles from and to principal towns and cities. These signs are placed at mile intervals along the road, the first on one side of the road and the next on the other side. A driver continuing along a road thus encounters a sign every two miles.

One of the most interesting features brought to the Pierce from railroad practice by Pres. E. D. Levy is the time-table type of trip map. These are almost identical with the time cards used by railroad engineers and are similar to the timetables furnished passengers.

Each card is for a trip of 100 to 300 miles between two principal points such as Kansas City and St. Louis, or Springfield and Little Rock or Shreveport and New Orleans. The cards are 4 x 12 inches. In the center is a map of the road showing the type of road, intervening towns, road markers and mileage in each direction. On the reverse side of the card names of all towns with distances between are printed and blanks are left for the motorist to jot down a time log of the trip.

The cards are of such handy size that they may be put up on the windshield or kept in a pocket for ready reference. They were prepared with the idea that one would be enough for each car but in practice it has been found that nearly every occupant of a car wants his own trip card to watch the progress of the miles and jot down the time arrived at each point. A million and a half trip maps showing 50 trips in the southwest were printed but the supply will not be enough for the summer.

No Pierce station is provided with all 50 trip maps. Each station has the maps for trips out of his town. The station salesmen are instructed to tell motorists the Pierce station where they can get cards for the next lap of the journey. With this plan motorists are drawn to another Pierce station.

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**16-Inch Gas Line to N. Kansas City**

TULSA, Aug. 6.—The Kansas City Gas Co., one of the Henry L. Doherty utility companies, is laying a 16-inch gas line to North Kansas City, where it obtained a franchise recently. The line will be ready for operation in September. Two large industrial users who have contracted for gas are the Missouri Can and Corn Products companies.

# Louisiana Law Fixing Crude Oil Prices Attacked

HOUSTON, Aug. 2

ONE of the two radical enactments of the 1928 Louisiana legislature will have an airing next week at New Orleans, where three federal judges will hear attacks on what is commonly known as the 10-to-1 gasoline-crude oil ratio statute.

The act, No. 147, "prohibits the purchase or sale of crude petroleum at prices less than those based on a ratio of 10-to-1, with a maximum average retail price of gasoline in cents per gallon standing at 10 and the price of crude oil in dollars per barrel standing at 1."

Under provisions of the law, if the maximum average retail price of gasoline per gallon, less state tax, were 20 cents then the purchasing companies would not be permitted to pay less than $2 a barrel for crude petroleum.

A temporary injunction sought by the Standard Oil Co. of Louisiana was granted, Aug. 1, by Federal Judge Ben C. Dawkins, pending a hearing Aug. 6, at New Orleans before himself, United States Circuit Judge Rufus E. Foster and United States District Judge J. C. Hutcheson of Houston.

The other radical enactment of the 1928 Louisiana legislature, which is yet to be tested in federal court, is the new severance tax law[1] averaging about 6¼ cents per barrel on all crude petroleum taken from the ground in that state. Operating companies acting through the Louisiana-Arkansas division of the Mid-Continent Oil & Gas Association, as spokesman, will attack that law also in federal court.

First payments on the severance tax are due Oct. 1, but operation of the law will be suspended while it is tested in the lower federal courts before final hearing in the Supreme Court of the United States.

In asking for an injunction against the state of Louisiana in enforcing the so-called 10-to-1 ratio act, the Standard Oil Co. set up that the law is confiscatory and, therefore, unconstitutional; also that it would automatically raise the price of gasoline.

Under terms of the act, buyers of crude petroleum would be bound in each calendar month by the promulgated maximum average retail price of gasoline as determined by the supervisor of public accounts, regardless of changes in demand or stocks on hand. Penalties provided by the act require imposition of fines ranging between $100 and $1000 for each violation, with additional civil damages.

Summarizing, the attorneys for the Standard charged that the act destroys freedom of contract, violates the constitution, and is discriminatory.

"Heretofore," the bill of complaint sets forth, "the price at which crude petroleum has been bought or sold on the open market has been fixed by the economic laws of supply and demand. There has been a freedom of competition between the purchasers of crude petroleum and the supply has varied, depending upon the number of wells in operation and the amount extracted."

These factors, it is set up, are not constant.

Continuing, the bill of complaint says "the price at which crude petroleum has been sold in the various producing fields of Louisiana has been heretofore determined by the amount for sale and the needs and demands of the purchasers of the crude product. There is no reasonable relationship between the price of crude petroleum and the price of its refined products.

"THERE may be at one and the same time a scarcity of the refined products due to an economic condition, depending upon seasonal demands, the exportation of refined products in interstate and foreign commerce, all of which have a tendency to raise the price of gasoline owing to the application of the well known economic principles of supply and demand while, on the other hand, the overproduction of crude petroleum, the lack of storage facilities and the possession of a large store of crude petroleum at the refineries will have a tendency to lower the price of crude petroleum.

"The provisions of the law prevent the entering into contracts for sale between producers and buyers of crude petroleum. The business of buying and selling this product is not a business vested with a public interest nor is it subject to the regulatory control of the state of Louisiana to fix prices. It is a private business and those engaging in it have the right to contract on such terms as to them seem best."

1—Pages 27-52, July 25, 1928, issue NATIONAL PETROLEUM NEWS.

PAUL WAGNER

## Oildom Comes to West Texas Plains

***Starting August 15th Issue***

THE opening and developing of a new big oil field, to an oil man, is the most inspiring story of modern industry.

Modern America sits enthralled at the movie while a romance of frontier days in our country's early history unfolds on the screen.

There is being unfolded today on the plains and desert of West Texas, and into New Mexico, just as thrilling a story in the wrenching from territory than even Nature passed by of new towns, new roads, new rail lines, camps, and so on that come as the oil industry develops new producing areas.

That story includes much more than a recounting of new wells started, of barrels of daily production added, of transfers of leases and so on. It is the story of human ambitions and energies enthusiastically set up against hardships and obstacles Nature imposed.

Read this new series of articles by Paul Wagner, production analyst on NATIONAL PETROLEUM NEWS staff, for this real story of West Texas in its relation to the entire oil industry in this country. He has just returned from another trip by car over this entire territory.

He will give you facts on current development, estimates as future output, and so on, the vital information from this territory. He will tell what the oil companies are doing to make this territory inhabitable, what new drilling and production methods have been developed there, new problems that have arisen through the nature of the oil.

More than that, however, through his close contact with this territory, he will give you the story of the great human endeavor under way there—an epic of the oil industry.

# Free Parking Helps Station Sales

CLEVELAND, Aug. 4

FREE parking space is one of the features of a combined filling station and barbecue which E. C. Flanagan and Sam Rosenthal built at St. Clair Ave. and E. 140th St., Cleveland. Mr. Flanagan formerly was president of the Columbia Refining Co., Cleveland, but sold out his share to Pennzoil Co., Oil City, Pa.

This building, in the Spanish mission style, is in an important outlying business district. It is on a high-priced lot and probably has been erected more as a tax paying proposition than as an investment. However, it contains some features that can be applied by oil companies in the building of service stations.

The lot is triangular, two of the legs being important thoroughfares. The station has wide drives and can be entered easily from either street, and by traffic going in either direction.

Revenue is derived from the large billboards on the "dead" side of the lot. Both the parking space and the barbecue attract gasoline and oil business.

The gasoline and oil business is leased to R. A. Boyd, a former accountant who wished to get away from the humdrum of a desk. The barbecue is operated by Albert Brandt, an experienced restaurant man.

The parking space is used by scores of shoppers as the lot is adjacent to a district that has stores of all types and two or three theaters.

Two blocks away is the factory of the Fisher Body Ohio Co. which employes at this time 7200 men. Many of these employes drive to work and buy their motor fuel on their way home in the afternoon. They are not users of the parking space as ample room is provided for them by the factory.

The factory workers are patrons of the barbecue and in the summer thousands of cars bound for one of the city's chief beaches and the many summer cottages on Lake Erie pass the station daily.

The oil salesroom faces the convergence of the two streets. The lunchroom extends across the rear with entrances on two sides. The barbecue grate is in the center of one side where the roasting meat will attract the beach and factory trade.

The walls of the building are of tan stucco and are surmounted by red Spanish tile. Colorful awnings supported with standards bearing spearheads, add to the attractive appearance of the place. In an arch on the roof above the door to the salesroom is a bell, similar to the one used in the Pennzoil trademark. Pennzoil oils and gasoline are sold.

Open greasing pits at one side and to the rear of the station are guarded with railings. The entire lot is brilliantly lighted at night with flood lamps.

It is not uncommon, Mr. Boyd said, to fill the parking space with cars twice a day, once with shoppers and in the evening with pleasure seekers. A good percentage of these cars are oil and gasoline customers. A car can be oiled and greased while the owner and his sweetie are eating a few snacks in the lunchroom.

*Service station and barbecue of Flanagan & Rosenthal, Cleveland, the former of which is operated by R. A. Boyd. The barbecue and the expansive parking space in the rear of the station attract much oil and gasoline trade*

# Heavy Demand for Natural Gasolines Depletes Plant Storage

By Allen S. James
N. P. N. STAFF WRITER

Staff Special
TULSA, Aug. 4

A PHENOMENAL advance in natural gasoline prices in the Mid-Continent during the four months from April 1 to July 31 has been caused by an abnormally large demand from the following sources:

(1) Heavy buying by Gulf coast refiners operating on west Texas and other low gravity crude oils.

(2) Tremendous export gasoline demand in the Mid-Continent, with resultant increase in demand for natural from refiners making export grade goods.

(3) Exceptionally good domestic demand for gasolines throughout the spring, with its increased demand for naturals from refiners who not only could increase gallonage somewhat by using naturals, but who also could show a profit by such operations as long as cost of naturals plus freight rate to refinery was below price of 58-60 U. S. Motor gasoline.

The price of grade AA during the four months more than doubled, while the prices of grade BB and C more than trebled. During July the prices of all grades moved up approximately 3.50 cents a gallon, after the prices of the lower grades late in June had moved up to a level with grade AA.

On July 13 price of natural gasolines in Oklahoma moved above the price of 58-60 U. S. Motor. This was the first time naturals had been above U. S. Motor in almost two years. On July 31 price of naturals was approximately a cent above the price of U. S. Motor.

The attractive prices and the exceptional demand was so tempting that manufacturers abandoned their usual plan of building up storage in the summer in anticipation of a big demand from refiners in August and September, in which period the heavy ends of refined gasolines usually are blended and sold during the late summer and early fall buying flurry around Labor day.

The U. S. Bureau of Mines report for June shows that, during that month, stocks of natural gasoline in the Mid-Continent were reduced over 5,000,000 gallons, while for the country as a whole they were reduced approximately 6,700,000 gallons. Stocks on hand June 30 in the Mid-Continent totaled 21,907,000 gallons, while for the country as a whole the total was 27,202,000 gallons.

Not since February, 1927, have natural gasoline stocks for the country as a whole been as low as they were on June 30 this year.

One of the largest manufacturers in the Mid-Continent on July 31 had only 400,000 gallons of natural gasoline in storage, exclusive of his working stocks of approximately 2,000,000 gallons. This manufacturer normally has between 10 and 12 million gallons of naturals in storage by August 15, which he moves to refiners when they buy heavily late in August and early in September for blending the heavy gasoline ends.

Another large manufacturer has had virtually no stocks on hand for the past four months except goods which he moved to an export terminal on the Gulf coast preparatory to shipping the goods late in July on a contract made early in the year.

STILL another large manufacturer April 15 had approximately 2,000,000 gallons of naturals in storage. He gradually increased this storage until, on June 29, he had 4,000,000 gallons on hand. Between July 1 and July 15 he had reduced stocks to less than 2,000,000 gallons. That means he not only moved his daily production of 15 cars during that time but drew approximately the same amount daily from storage.

Several of the smaller manufacturers in the Mid-Continent do not have the available storage facilities of the larger companies, but they have had no difficulty in keeping their tanks empty and their loading racks clear of loaded cars.

Probably the first real support the natural gasoline market received this year was late in April and early in May, when a large refiner on the Gulf coast bought over 200 cars of natural gasolines on the open market which he used to bring up the gravity of stored gasoline refined during the winter from west Texas crude. This gasoline was blended with naturals and moved in large quantities into several of the consuming territories of the middle west in competition with Group 3 refiners. Since that time this refiner, as well as several others on the Gulf coast and in west Texas, have been consistent and heavy buyers of naturals.

It is interesting to observe in this connection, that, on March 31 this year, stocks on hand in the country as a whole totaled 35,358,000 gallons, while on April 30 they totaled 34,940,000 gallons, and on May 31 they were 33,965,000 gallons. The heaviest draft on stocks, therefore, was in June, and it is expected the July report will show an even greater stock reduction.

Export gasoline buying has been abnormally heavy in the entire Mid-Continent every month this year. Export buying of higher gravities developed about the time the Gulf coast refiners became active purchasers of naturals, and the buying has held up through June and July, whereas normally exporters show little interest in the export gasoline market from around the middle of June until sometime in September.

Refiners making export specification gasolines usually require large quantities of natural gasolines. They were actively in the market each month and many of them not only took out their full contract requirements but bought more goods on the spot market. Exporters also were fairly heavy buyers of naturals. They bought the goods to "pep up" the gasolines which they already had in storage at their Gulf ports.

Then came the exceptionally good domestic demand for refined gasolines. Prices of all refined gasolines moved upward. It was profitable for refiners to blend with naturals as long as the price of the blending goods plus the freight rate to the refinery and the evaporation loss did not equal the price obtained at the refinery for the blended product. Refiners accordingly used large quantities of naturals in their domestic gasolines as well as in their export grade goods.

SINCE the price of naturals has gone considerably above that of U. S. Motor several refiners have declared their intention of cutting down their consumption of naturals.

One Oklahoma refiner recently explained just why he would reduce his natural gasoline purchases. He uses 10 per cent grade AA to bring his refined gasoline up to 58-60 gravity. On July 31 grade AA was 10.25 cents a gallon, as compared with 9.50 cents a gallon for 58-60 U. S. Motor. The freight rate on naturals to his refinery is 0.75 cent a gallon, which is probably a little lower than the average rate. He estimates an evaporation loss of about 5 per cent, or 0.50

cent a gallon. Grade AA costing originally 10.25 cents a gallon, finally costs him 11.50 cents when blended. That is 2 cents a gallon above the price he obtains for his blended product, and since he is using 10 per cent naturals, this extra cost is 0.20 cent on every gallon of the blended product.

There was considerable speculation at the beginning of August as to the fate of naturals the next 60 days, in view of the attitude many refiners apparently have assumed. And the future undoubtedly depends to a large measure on the extent to which refiners do buy naturals for blending their daily production, as well as the extent to which they buy to blend with what heavy ends they now have in storage.

## Proration Established For Roberts Deep Lime

(By Telegraph)

HOUSTON, Aug. 5.—The railroad commission of Texas, acting under its conservation powers, August 4, issued an order establishing field rules for prorating of crude oil production from the Dora Roberts deep lime area of Howard and Glasscock counties.

Under the order, which takes effect August 15 for six months, the field is divided into 40-acre units and only one well will be permitted to be drilled to each producing horizon below 2000 feet. Production will be limited to 15,000 barrels daily from deep horizons affected by the order, for the first month. Thereafter maximum allowable production will be 25,000 barrels daily.

Settled sand horizon production at depths ranging from 1400 to 1800 feet in the general area will be governed by the prorating machinery established for dealing with oil from the deeper levels.

The deep lime wells of the Howard-Glasscock area have been shut in as fast as completed for a number of months. Prorating steps therefore represent an opening of production within the limits of the commission order rather than cutting back of present daily yields. Action in advance of exploitation, however, will prevent complications such as those which marked early prorating work in the Winkler territory.

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Lester H. Keim, who has been assistant general manager in Los Angeles for the Oil Well Supply Co., Pittsburgh, Pa., has been placed in complete charge of company affairs in the California district as manager, with headquarters at Los Angeles.

Mr. Keim is a graduate of the engineering school of Carnegie "Tech" and has been with the Union Switch & Signal Co., and with the R. D. Nuttall Co., for whom he developed, in connection with the Oil Well Supply Co., Oilwell Hild differential drive for deep drilling.

# Rules Lease Contract Calls for Drilling to New Sands

LOS ANGELES, Aug. 3

IN A decision rendered July 25 in the Superior Court of California, the Inter-State Oil Corp. was instructed to start drilling a well within 10 days to develop the deeper sand at 6000 feet and below at Long Beach.

This decision was rendered under a plea of the land owner. Several major companies have joined with the Inter-State to carry the case to the higher courts.

Jona Jones and wife, as plaintiffs, are owners of a lease consisting of three town lots which in 1922 were leased to the Inter-State with a lease requirement that three wells be drilled to 4000 feet. When the first well was drilled to 4000 feet, sufficient sand had not been penetrated to make a good well. Inter-State officials reached a new agreement with the plaintiffs that the well would be carried further down and that the defendants would not be forced to drill three wells as originally agreed upon. The well was brought in at 4700 feet, was a good producer and today is on the pump with a fair production.

The oil company claimed that it had carried out the lease agreement and that the land owner could not force it to drill another well to a much greater depth.

The legal departments of the Richfield Oil Co., The Texas Co., Miley Oil Co., and others, agreed with the contentions of the defendants and were permitted to file a brief on the points of law affecting the case.

The case was tried before Superior Judge Guerin who rendered decision in favor of the plaintiffs and instructed that a deep well be started within 10 days.

Following is Judge Guerin's opinion:

"I agree with the law and the reasoning set forth therein to the extent that there can be no implied covenant read into a lease which would require either lessor or lessee to do one thing to comply with the terms thereof, conditioned however, upon the lease definitely expressing what is required.

"The lease involved is definite, in my opinion, and defendant has performed the obligations incumbent upon it. Therefore it cannot be disturbed in the peaceful enjoyment of the proceeds from the well it has brought in.

"However there has developed a condition which was not, and could not be known at the making of the said lease, it now being reasonably sure that there are rich deposits of oil and gas at a depth below what was then contemplated.

"The defendant has failed to drill or commence to drill to the deeper sands, saying by his actions that he is content with the more shallow production.

"Equity does not require plaintiffs to stand by and see these deposits depleted by his neighbors, but must permit them to drill into and save such deposits as they may find, so long as they do not trespass upon the rights of defendant in its operation of the well it has brought in.

"Therefore, the Court finds:

"First—That defendants are hereby required to begin an active, bona fide, properly financed drilling program to tap said deeper sands within ten (10) days from the date hereof:

"Second—That if defendant does not begin so operating on or before August 5th, 1928, or should it cease operations, then and in that event (a) plaintiffs shall be and are hereby permitted to go upon said leased premises, to sink and bring in a well or wells, from sand below where the well of defendant is now producing; (b) that defendant be precluded from drilling into said deeper sand and or interfere with plaintiffs in their drilling program."

## Tanker Rates

NEW YORK, Aug. 6.—Approximate tanker freight rates in the following trades are, to Continental ports, in shillings per ton of 2240 pounds, British Sterling; to American ports, cents per barrels:

| | Crude &/or Fuel | Refined Oil |
|---|---|---|
| Calif. to U.K. or Continental ports* | 25/6 | 26/- |
| Gulf to U.K. or Continental ports* | 15/ | 15/6 |
| North Atlantic to U.K. or Continental ports* | 12/ | 13/6 |
| Calif. to North Atlantic ports (not E. of N. Y.) | 50c | 68c |
| **Gulf and North Atlantic ports (not E. of N.Y.) | 17c | 25c |

*Continental ports in the range between Bordeaux and Hamburg, both inclusive.

**For Venezuela loading 1c per bbl. additional. For Tampico loading, 4c per bbl. additional.

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Des Moines Foundry & Machine Co., Des Moines, Ia., claims to have a new idea in its recent invention, the Barl Movr. The new device is a truck specially designed for moving drums and barrels of any size, shape or weight, which does the work more quickly, safely and at lower cost. A twist of the handles swings the conveying toes under the drum while the trucker is pulling back to bring the drum in carrying position.

# Survey of Marketing Conditions By State Associations

(*Continued from Page* 19)

**By R. C. Clark, President Independent Oil Co., Tupelo, Miss., Past President Mississippi Oil Jobbers Assoc.**

IN GENERAL, an independent oil distributor is operating in Mississippi at a loss, no matter whether he may be on a marginal contract or on the spot market.

If he is under marginal contract, most of the contracts written in this territory on a basis of 4 cents but refineries have made an allowance of 1 cent per gallon, which gives the jobber a 5-cent margin under tank wagon. That is gross tank wagon. On the spot market, gasoline today quoted at 10 cents Shreveport with an average freight rate of 2 cents, tax of 4 cents, making 16 cents. Jobbers are selling on a gross tank wagon of 20 cents, less 2 cents, making a net of 3 cents where they have contracts, and a net of 2 cents on the spot market. The average haul on country roads is 15 miles, therefore, they are operating at a loss.

We have very few cut price bulk dealers in Mississippi, but where they are located so far, they have not followed the advances, and from my information, do not intend to follow it except as they buy, which would mean they would change their prices only about once a month, as their average sale is about a tank car a month.

There is very little building being done by either the major companies or independents. No pumps are being withdrawn, but very few are being leased.

There seems to be no change in the marketing policies of any of the companies except that on concessions and private rebates. Signed rentals have been done away with.

As I see it, we have three major disturbing factors in the oil marketing business today. The first of these is the fight between the major companies and their subsidiaries, or the integrated companies. These have plenty of capital, good men and seem to have no one to hold a check line over them. Profits are not considered, but the number of gallons at the end of the month is their only object.

Second, the bulk railroad station, which has an economical place properly run; but is in direct competition and to a great extent detrimental to any oil distributing company who has followed the best policies of marketing.

Third, the cooperative filling station, or distributing company, which has been organized on a stock selling basis.

**By L. H. Martin, Secretary North Carolina Independent Oil Jobbers Association**

MANY of the independent marketers in this territory are now operating at a loss, due to the narrow margin on gasoline. I presume from 25 per cent to 40 per cent of the independent companies in North Carolina are buying on the open market. The margin of profit at the present time is .0226, and in a number of cases 1 cent a gallon rebate, in addition to marketing cost, has to depend on this small margin to do business.

To illustrate. Norfolk price according to Platt's Oilgram was .1125 at the close of business July 31. The freight rate to Greensboro is .0224. To this must be added .0425 road tax and inspection. This makes the delivered cost Greensboro, with tax paid .1774. The Greensboro tank wagon price is 20 cents.

About three months ago all major companies notified their customers that, 30 days from date, all concessions would be withdrawn, except where the form of contract did not permit such cancellation.

By the time the 30-day period arrived all companies were offering 1 cent off tank wagon price on gasoline, with no concessions on kerosene. A few weeks later the Gulf, Texas, Sinclair and National Refining raised their tank wagon price to 21 cents, and at the same time increased their concessions to 2 cents, which leaves them on the same basis as the Standard and independent jobbers are maintaining.

As a result of the notice that concessions were to be withdrawn, about 10 per cent of the curb pumps and country stations discontinued business.

We have only a few bulk railroad stations selling at retail. They are selling at tank wagon price but not seriously affecting the trade.

Few new stations are being erected either by major companies or by independents.

With the tank wagon market at 20 cents and the service station price 23 cents the service station operator appears to have a 3-cent margin of profit. However, the major companies, either through the form of a courtesy card or coupon book, sell gasoline to commercial accounts at 2 cents under service station price. My own observation is that practically 50 per cent of the service station sales are to commercial accounts. Therefore the profit on 50 per cent of sales is 1 cent per gallon, and added to this is the fact that practically all commercial business is sold on a credit basis.

The disturbing factor from the service station standpoint is the commercial price. The disturbing factor from the jobbing end is the narrow margin between tank car and tank wagon.

**By Fred C. Cramer, President Denver Powerine Co., Denver, Col.**

ON ACCOUNT of two cent tank wagon advance Aug. 1 over Colorado, margins have been increased. Probably 75 per cent of the contracts in the state have marginal and spot market clauses both. Ethical dealers refuse to supply cut price dealers any merchandise to be sold at cut prices thereby demoralizing their own prices.

In consequence, many of these dealers have advanced their prices to the regular price. We believe this will have good effect in the industry. There are, however, probably 10 per cent marketing at 2 cents under the established price and it is probable that these will finally adjust themselves to normal conditions. Not very many new stations are being constructed.

Quite a number of jobbers are selling below the regular tank wagon price. These seem to be the disturbing factor in this section.

Continental Oil—Effective Aug. 1 t.w. and s.s. gasoline at Albuquerque, N. M., was reduced 2 cents to 20 and 23 cents.

## Mission Pool Extended

(By Telegraph)

TULSA, Aug. 7.—Production in the Mission pool three and one half miles south of the Earlsboro member of the Seminole group in Seminole County, Okla., has been extended half a mile west of the discovery well by the completion of the Gypsy Oil Co., No. 1, Barkus in the southeast southwest of Sec. 6-8 north six east. Tuesday morning the gauge on the well was 4200 barrels from the Wilcox sand from 4206 to 4215 feet.

## Late Crude Price Changes

DALLAS, Aug. 7.—Magnolia Petroleum Co. effective today, met the new posting of the Standard Oil Co. of Louisiana in the Pine Island, Haynesville and Bull Bayou, La., and El Dorado, Ark., fields. The new Rainbow, Ark., field was not included in its new price schedule.

* * *

SHREVEPORT, La., Aug. 7.—The Shreveport El Dorado Pipe Line Co. today, and effective Aug. 2, met the new price posting of the Standard Oil Co. of Louisiana in the El Dorado, Ark., and Homer, La., fields.

# Review of Late Production News

TOTAL crude supply of the country Aug. 4 was 2,673,864 barrels, daily average, based on American Petroleum Institute figures.

This was a gain of nearly 65,000 barrels compared with July 28, and made up of 46,571 barrels in crude imports, and 18,400 barrels gain in domestic output east of the Rockies.

Total domestic production was 2,404,150 barrels Aug. 4, a gain of 17,900 barrels from the week before.

Largest gain in individual districts in this country was in the prorated areas of west Texas, production in Winkler and Pecos counties increasing 13,000 barrels over the week before.

In Oklahoma-Kansas, the Little River pool in Seminole territory was the only one to show a noticeable gain —3000 barrels. All Oklahoma gained 2350 barrels.

In Arkansas, the Champagnolle pool was off nearly 1000 barrels. Sale Creek accounted for a gain of 1550 barrels in Rocky Mountain territory. In California Santa Fe Springs gained 1500 barrels; Long Beach lost 4000. Change for the entire state was 500 barrels gain.

Price changes in various fields during the past week have been readjustments following the change in Mid-Continent prices made July 26.

## Oklahoma-Kansas

LATE completions in Oklahoma, and wells which will soon be completions, are in, or close to, the Little River southern extension restricted territory. Sixty wells will soon be at depths where production is to be expected. Pipe line facilities are more than ample to handle the oil and, consequently, the principal discussion is one of the extent and manner of proration in this territory in the future. Under the present agreement these wells are to be opened to production of 1600 barrels an acre Aug. 15, this to run to Sept. 15.

Fears that the St. Louis pool, in Twps. 7-5 and 7-4, will develop production, have led to calling a meeting of operators for Aug. 7 to discuss methods of holding back production here. This pool is now doing 40,000 barrels daily from all sands. Recent completions indicate the area will be spotty.

In Kansas the Roxana Petroleum Corp. has a wildcat well in Harvey county, eight miles west of Newton, in the formation found productive in the Lost Springs pool of Marion county, at 2940 feet.

In neither state did the change in crude prices of the preceding week bring any indication of increased drilling activity.

## California

SIXTY new locations have been made in the old Santa Fe Springs pool of the Los Angeles basin area since the completion of the Wilshire Oil Co.'s Buckbee No. 1 there July 26 at 5993 feet. It is believed that at least 100 wells will be drilling for this sand within 30 days. Every steel derrick for sale in southern California was spoken for in four days after this well was completed.

Much mystery still surrounds the actual performance of the Wilshire well. Five other wells are now drilling in this same area and it is possible one of them will have to get into the same sand before the production possibilities of this rejuvenated field can be estimated.

It is believed the new producing zone underlies most of the proven area of the old field. Most of the acreage is held by the big oil companies, but there will be townlot operators to contend with.

The Petroleum Securities Co. has announced its plans to develop the deep sand in the Inglewood field, upsetting plans of operators to hold back production here. This lower zone requires only about 3000 feet of hole from the top and wells can be drilled in a short time.

Another deep well was reported last week, that of the Chanslor-Canfield-Midway Oil Co. in the old Midway field, making 200 barrels an hour of 22 gravity clean oil. This field has been dormant for several years. Operations to deeper sands here hold no threat of an increase in the state's output, as the leases are in large blocks in the hands of companies not desirous of starting large drilling campaigns.

## Texas, New Mexico, Louisiana

SLOW but steady wildcatting has failed to show further concrete developments in the Lea county, New Mexico, area that has engaged the attention of operators since a trend in that direction was indicated to extend north-northwest from Winkler county, Texas.

Production has increased from about 13,000 barrels daily, June 1, to about 35,000 barrels at present in the Wilbarger county division of the Greater Wichita Falls district of Texas, due principally to developments in the Grayback area of the W. T. Waggoner ranch.

Although the high gravity gasoline crude of the general Wichita Falls territory is in demand, and the district now totals only about 100,000 barrels daily production, lack of adequate pipeline facilities to handle the Wilbarger oil is creating a condition of crude congestion.

Elsewhere in Texas, current developments have been confined to a larger number of small well discoveries—generally at shallow depths—that are of great importance to their owners but of little significance to operators generally.

A deep flank well of the Ed F. Simms interests, which flowed about 1000 barrels, initial production at 3800 feet, extending the old Evangeline field roughly a half mile southwest, was the only outstanding development in Gulf Coastal Louisiana. The North Louisiana territory was without incident.

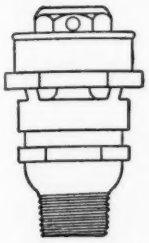
Proration is definitely established by the Texas railroad commission for the Roberts deep lime area of Howard and Glasscock counties, west Texas, effective Aug. 15, to continue six months. The field is to be divided into 40-acre units, with one well permitted drilled to each producing horizon below 2000 feet.

## Wyoming, Montana

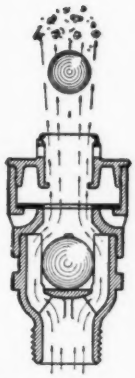
MIDWEST REFINING CO.'s pipe line from the La Barge oil field in Wyoming to railhead at Opal will be running crude within a week. The line is now being tested. Average daily production of the field is estimated at 2000 barrels.

The Texas Co. is reported going ahead with plans for a new refinery to run on black crude from the Oregon Basin field in Park county, Wyo. The refinery will probably be located at Cody, 15 miles from the field.

In Montana interest is centering in operations in the new fields at Bannatyne and Pondera, in the Sweetgrass Arch, between the Kevin-Sunburst field and Great Falls. The Ohio Oil Co. is drilling one well in each field, and the California Petroleum Corp. is drilling at Pondera. Texas Pacific Coal & Oil Co. has laid a pipeline from Pondera to rail connection at Conrad.

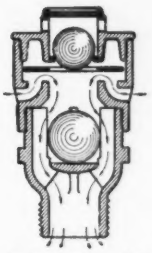


**Outside View**



**In Case of Fire**

*Fusible metal top melts —large escape prevents tank from bursting.*



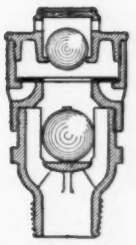
**Admitting Air**

*Air is admitted through side vents while contents are being withdrawn.*

***The new Wheaton Vent Valve for Truck Tanks***

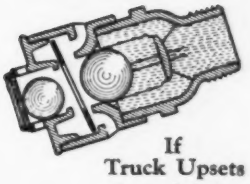
**Relieving Pressure**

*Excess pressure is immediately relieved — upper ball rises and releases air.*



**Normal**

*Showing valve in normal condition — both intake and escape vents closed.*

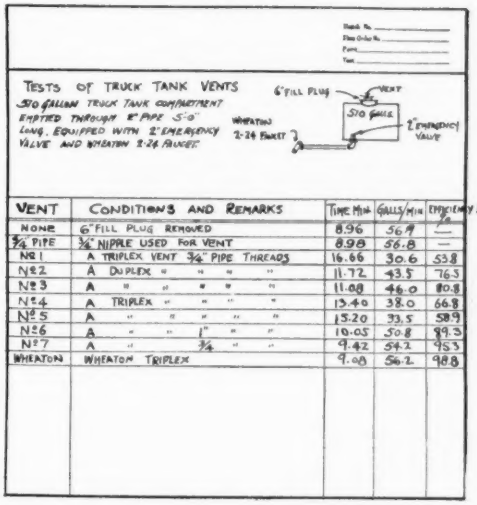


**If Truck Upsets**

*Bottom ball closes vent and prevents loss of gasoline.*

# NEW Vent Valve—*made by* WHEATON —proven MOST EFFICIENT of all!

## *98.8% Efficiency!*



TESTS OF TRUCK TANK VENTS

510 GALLON TRUCK TANK COMPARTMENT EMPTIED THROUGH 8" PIPE 5'-0" LONG, EQUIPPED WITH 2" EMERGENCY VALVE AND WHEATON 2-24 FAUCET

6" FILL PLUG — VENT — 510 GALLS. — 2" EMERGENCY VALVE — WHEATON 2-24 FAUCET

| VENT | CONDITIONS AND REMARKS | TIME MIN. | GALLS/MIN. | EFFICIENCY % |
|---|---|---|---|---|
| NONE | 6" FILL PLUG REMOVED | 8.96 | 56.9 | — |
| ¾ PIPE | ¾" NIPPLE USED FOR VENT | 8.98 | 56.8 | — |
| NO 1 | A TRIPLEX VENT ¾" PIPE THREADS | 16.66 | 30.6 | 53.8 |
| NO 2 | A DUPLEX " " " " | 11.72 | 43.5 | 76.5 |
| NO 3 | A " " " " " | 11.08 | 46.0 | 80.8 |
| NO 4 | A TRIPLEX " " " " | 13.40 | 38.0 | 66.8 |
| NO 5 | A " " " " " | 15.20 | 33.5 | 58.9 |
| NO 6 | A " " 1" " " | 10.05 | 50.8 | 89.3 |
| NO 7 | A " ¾ " " | 9.42 | 54.2 | 95.3 |
| WHEATON | WHEATON TRIPLEX | 9.08 | 56.2 | 98.8 |

HERE'S a *new* Vent Valve—made by Wheaton—that permits faster unloading than any other vent on the market. Tests *prove* it. Read the report at the left, which tells how this vent surpassed all competitors—with an efficiency rating of 98.8%!

Look at the diagrams at the top of this page. See how this new Wheaton Vent Valve positively *prevents evaporation.* See how excess pressure is immediately relieved by a simple ball check, and observe how air is admitted as contents are withdrawn. Note the remarkable *safety* features—how loss of contents is prevented if tank overturns; how fusible top melts and prevents tank from bursting in case of fire.

Replace your old vent valves with the Wheaton. It will save you hours each day in unloading. It will safeguard your tanks and product. And it will give you *longer service.* Wheaton Vent Valves are made of *all bronze*—the same tough, long-lasting bronze found in the finest Wheaton faucets and valves—machined and finished with characteristic Wheaton care. Send for a sample today. Give it your own test. If not entirely satisfactory, return it for credit or refund.

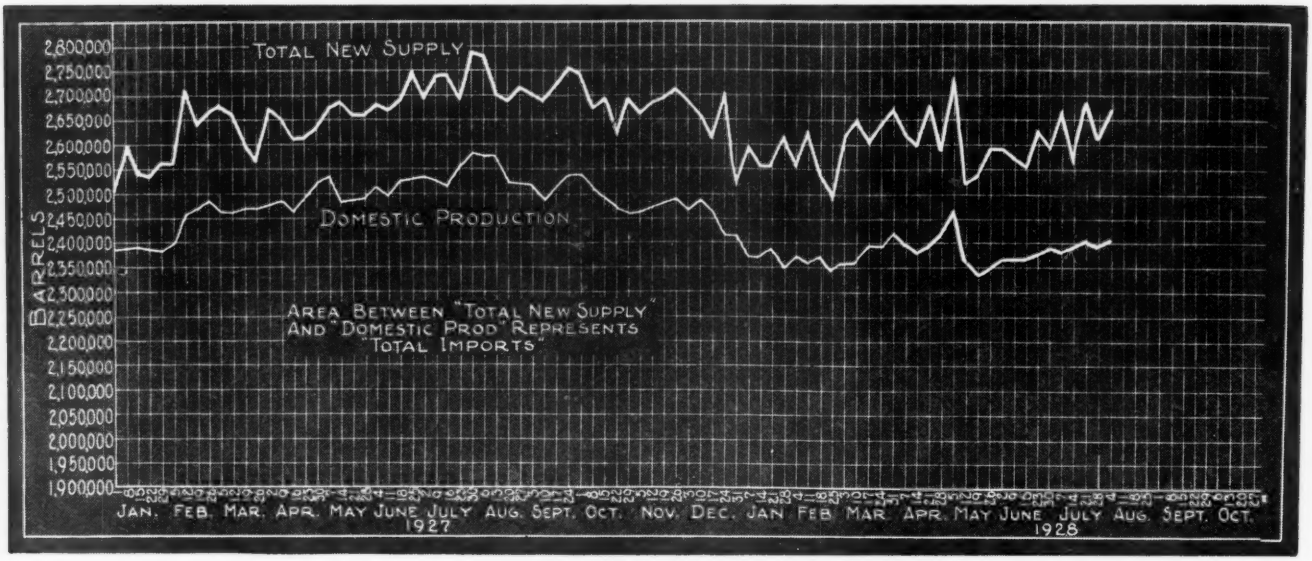
**A. W. WHEATON BRASS WORKS, NEWARK, N. J.**

***Empire Brass Mfg. Co., Ltd., London, Ontario, Canadian Manufacturers and Distributors***

# Wheaton

**FAUCETS · VALVES · JOINTS · COUPLINGS · FILLERS · NOZZLES · FITTINGS**

# Daily Average Crude Oil Production and Imports




**Daily average gross output of United States, by fields, for week ending with dates below as compiled by American Petroleum Institute**

## PRODUCTION SUMMARY

| | Aug. 4 | July 28 |
|---|---|---|
| **Production east of Rockies** | 1,762,150 | 1,743,750 |
| **Increase** | | 18,400 |
| **Total production in U. S.** | 2,404,150 | 2,386,250 |
| **Increase** | | 17,900 |
| **Crude oil imports** | 269,714 | 223,143 |
| **Increase** | | 46,571 |
| **Total crude supply** | 2,673,864 | 2,609,393 |
| **Increase** | | 64,471 |

### OKLAHOMA

| | Aug. 4 | July 28 |
|---|---|---|
| North Braman | 3,000 | 3,050 |
| South Braman | 1,500 | 1,500 |
| Blackwell | 3,450 | 3,500 |
| Hubbard | 2,600 | 2,650 |
| Thomas | 1,400 | 1,400 |
| Tonkawa | 13,350 | 13,600 |
| Garber | 8,400 | 8,450 |
| Burbank | 29,400 | 29,400 |
| Osage, outside Burbank | 26,900 | 26,950 |
| Cushing | 19,900 | 19,850 |
| Yale Jennings | 7,550 | 7,600 |
| Davenport | 1,900 | 1,900 |
| Bristow-Slick | 21,050 | 21,400 |
| North Okmulgee | 14,750 | 14,800 |
| Pearson | 3,900 | 4,300 |
| Lyons-Deaner | 5,850 | 5,900 |
| St. Louis | 39,500 | 38,050 |
| Allen Dome | 21,950 | 21,900 |
| Cromwell | 9,400 | 9,250 |
| Papoose | 4,100 | 4,200 |
| Wewoka | 6,000 | 6,200 |
| Seminole | 50,100 | 50,700 |
| Bowlegs | 56,550 | 56,550 |
| Searight | 12,700 | 12,950 |
| Little River | 43,400 | 40,150 |
| Earlsboro | 75,700 | 77,100 |
| Duncan District | 7,800 | 7,800 |
| Graham | 5,350 | 5,350 |
| Fox | 1,600 | 1,600 |
| Healdton | 14,150 | 14,150 |
| Hewitt | 9,600 | 9,650 |
| Scholem Alechem | 15,750 | 15,650 |
| Others | 53,600 | 52,300 |
| Total, Oklahoma | 592,150 | 589,800 |
| Increase | | 2,300 |

### KANSAS

| | | |
|---|---|---|
| Greenwood County | 28,350 | 28,500 |
| Florence-Covert | 1,000 | 1,000 |
| Peabody-Elbing | 3,200 | 3,200 |
| Eldorado-Towanda | 12,900 | 12,950 |
| Augusta-Fox-Bush | 3,350 | 3,400 |
| Rainbow Bend | 1,550 | 1,600 |
| Russell | 3,600 | 3,800 |
| Churchill | 9,850 | 10,250 |
| Oxford | 10,300 | 10,400 |
| Others | 28,900 | 27,500 |
| Total, Kansas | 103,000 | 102,600 |
| Increase | | 400 |

### NORTH LOUISIANA

| | | |
|---|---|---|
| Homer | 4,300 | 4,400 |
| Haynesville | 6,050 | 6,100 |
| Caddo, light | 9,750 | 9,600 |
| Caddo, heavy | 3,200 | 3,200 |
| De Soto, Red River | 4,050 | 4,600 |
| Elm Grove | 600 | 600 |
| Bellevue | 850 | 850 |
| Cotton Valley | 4,650 | 4,900 |
| Urania | 6,900 | 7,300 |
| Pleasant Hill | 600 | 600 |
| Total, North Louisiana | 41,000 | 42,150 |
| Decrease | | 1,150 |

### ARKANSAS

| | | |
|---|---|---|
| El Dorado | 5,400 | 5,400 |
| Champagnolle | 12,650 | 13,450 |
| Smackover, light | 7,550 | 7,450 |
| Smackover, heavy | 57,450 | 57,900 |
| Stephens | 1,000 | 1,050 |
| Nevada | 1,350 | 1,400 |
| Lisbon | 2,000 | 2,000 |
| Others | 100 | 100 |
| Total, Arkansas | 87,500 | 88,750 |
| Decrease | | 1,250 |

### TEXAS (Outside Gulf Coast)

#### Panhandle District

| | | |
|---|---|---|
| Hutchinson County | 35,700 | 34,000 |
| Carson County | 6,650 | 6,700 |
| Gray County | 20,300 | 21,000 |
| Wheeler County | 900 | 800 |
| Others | 200 | 200 |
| Total, Panhandle District | 63,750 | 62,700 |
| Increase | | 1,050 |

#### NORTH TEXAS

| | | |
|---|---|---|
| Burkburnett | 10,000 | 10,050 |
| Electra | 13,650 | 13,750 |
| Iowa Park and K-M-A | 4,000 | 4,100 |
| Wilbarger | 32,800 | 31,150 |
| Archer County | 20,500 | 20,600 |
| Montague-Cooke | 11,000 | 11,050 |
| Others | 600 | 600 |
| Total, North Texas | 92,550 | 91,300 |
| Increase | | 1,250 |

#### West Central Texas

| | | |
|---|---|---|
| Stephens County | 7,100 | 7,400 |
| Eastland-Desdemona | 7,450 | 7,600 |
| Brown County | 12,200 | 12,400 |
| Coleman County | 3,300 | 3,450 |
| Callahan County | 3,500 | 3,500 |
| Shackleford County | 10,850 | 10,550 |
| Young County | 8,000 | 8,150 |
| Throckmorton County | 800 | 850 |
| Palo Pinto County | 400 | 450 |
| Jack County | 1,500 | 1,300 |
| Others | 600 | 600 |
| Total, West Central Texas | 55,700 | 56,250 |
| Decrease | | 550 |

#### West Texas

| | | |
|---|---|---|
| Jones County | 1,600 | 1,650 |
| Mitchell and Scurry Counties | 3,050 | 3,050 |
| Howard County | 4,950 | 5,500 |
| Reagan County | 17,950 | 17,700 |
| Crane and Upton Counties | 64,150 | 65,400 |
| Crockett County | 3,100 | 3,200 |
| Pecos County | 71,350 | 63,100 |
| Winkler County | 183,800 | 177,300 |
| Others | 1,600 | 1,600 |
| Total, West Texas | 351,550 | 338,500 |
| Increase | | 13,050 |

#### East Central Texas

| | | |
|---|---|---|
| Mexia | 6,900 | 6,900 |
| Currie | 450 | 450 |
| Richland | 550 | 550 |
| Wortham | 1,700 | 1,700 |
| Corsicana-Powell | 10,550 | 10,600 |
| Nigger Creek | 1,000 | 1,050 |
| Total, East Central Texas | 21,150 | 21,250 |
| Decrease | | 100 |

#### Southwest Texas

| | | |
|---|---|---|
| Luling | 13,250 | 13,100 |
| Lytton Springs | 1,100 | 1,050 |
| Somerset | 700 | 700 |
| Laredo District | 8,700 | 8,600 |
| Dale | 1,200 | 1,200 |
| Others | 400 | 400 |
| Total, Southwest Texas | 25,350 | 25,050 |
| Increase | | 300 |
| Total, Texas (outside Gulf Coast) | 610,050 | 595,050 |
| Increase | | 15,000 |

### GULF COAST

#### Coastal Texas

| | | |
|---|---|---|
| West Columbia | 8,200 | 8,200 |
| Damon Mound | 800 | 800 |
| Big Creek | 3,850 | 3,000 |
| Boling | 2,300 | 2,000 |
| Blue Ridge | 7,000 | 6,500 |
| Pierce Junction | 11,700 | 12,050 |
| Humble | 1,350 | 1,300 |
| Goose Creek | 6,800 | 6,600 |
| South Liberty | 3,700 | 3,800 |
| Hull | 10,400 | 10,650 |
| Saratoga | 1,000 | 1,050 |
| Batson | 1,400 | 1,400 |
| Barber's Hill | 750 | 700 |
| Sour Lake | 3,400 | 3,400 |
| Spindletop | 36,650 | 37,000 |
| Orange County | 3,750 | 3,900 |
| Others | 2,250 | 2,400 |
| Total, Coastal Texas | 105,300 | 104,750 |
| Increase | | 550 |

#### Coastal Louisiana

| | | |
|---|---|---|
| Vinton | 4,500 | 4,600 |
| Sulphur Dome | 3,900 | 4,200 |
| Lockport | 3,600 | 3,500 |
| Sweet Lake | 3,900 | 4,350 |
| Evangeline | 2,000 | 1,050 |
| East Hackberry | 6,050 | 4,300 |
| Edgerly | 1,100 | 1,100 |
| Sorrento Dome | 1,400 | 1,450 |
| Others | 1,750 | 2,200 |
| Total, Coastal Louisiana | 28,200 | 26,750 |
| Increase | | 1,450 |
| Total, Gulf Coast | 133,500 | 131,500 |
| Increase | | 2,000 |

### ROCKY MOUNTAIN

#### Wyoming

| | | |
|---|---|---|
| Salt Creek | 39,800 | 38,200 |
| Grass Creek | 2,450 | 2,450 |
| Elk Basin | 1,050 | 1,050 |
| Big Muddy | 2,700 | 2,700 |
| Lost Soldier | 4,050 | 4,100 |
| Rock Creek | 2,700 | 2,850 |
| Lance Creek | 600 | 550 |
| Teapot Dome | | |
| Others | 6,950 | 7,300 |
| Total, Wyoming | 60,300 | 59,200 |
| Increase | | 1,100 |

#### Montana

| | | |
|---|---|---|
| Cat Creek | 1,650 | 1,700 |
| Sunburst | 8,300 | 8,300 |
| Others | 100 | 100 |
| Total, Montana | 10,050 | 10,100 |
| Decrease | | 50 |

#### Colorado

| | | |
|---|---|---|
| Moffat (Craig) | 1,400 | 1,350 |
| Fort Collins | 2,700 | 2,700 |
| Florence | 1,100 | 1,150 |
| Others | 3,050 | 2,700 |
| Total, Colorado | 8,250 | 7,900 |
| Increase | | 350 |

#### New Mexico

| | | |
|---|---|---|
| Hogback | 350 | 200 |
| Artesia | 1,100 | 1,100 |
| Rattlesnake | 1,200 | 1,200 |
| Others | 200 | 200 |
| Total, New Mexico | 2,850 | 2,700 |
| Increase | | 150 |
| Total, Rocky Mountain | 81,450 | 79,900 |
| Increase | | 1,550 |

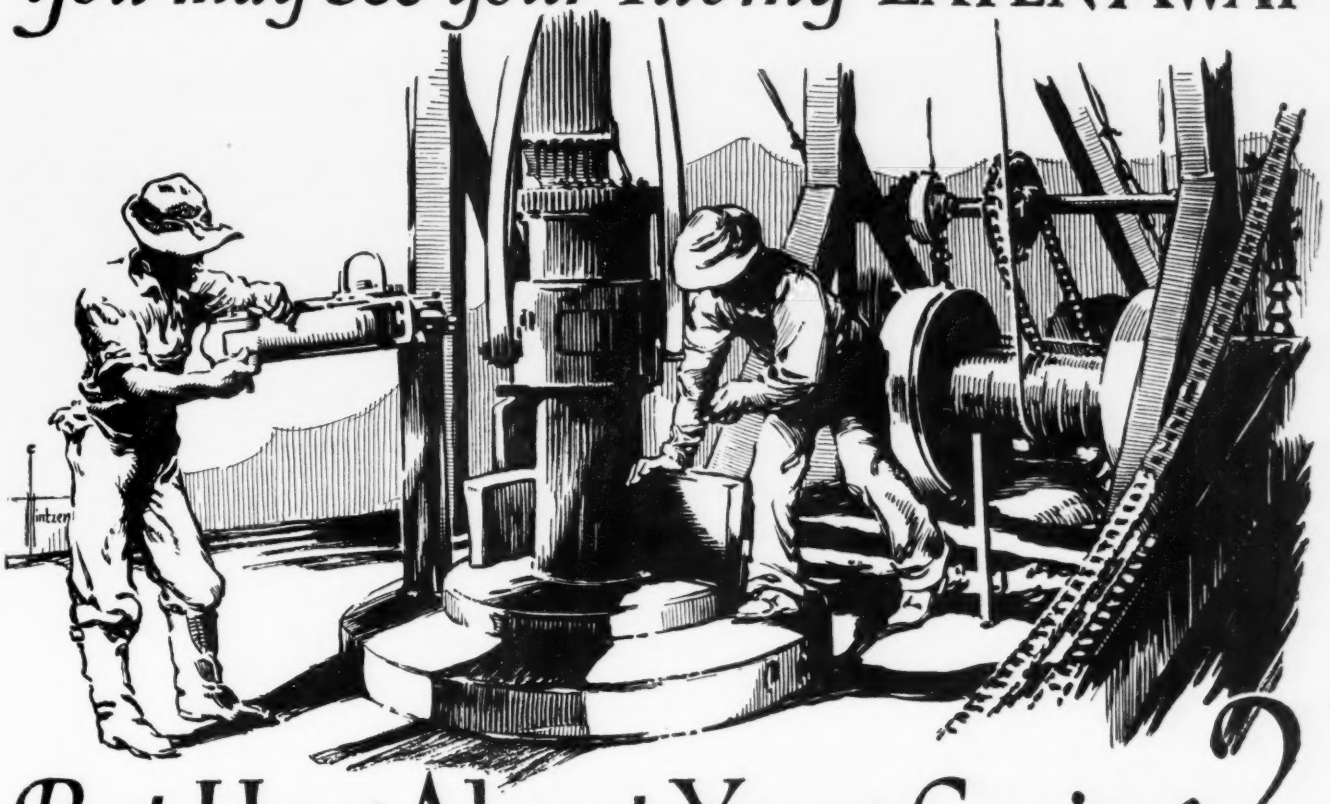
### CALIFORNIA

| | | |
|---|---|---|
| Santa Fe Springs | 38,000 | 36,500 |
| Long Beach | 198,000 | 202,000 |
| Huntington Beach | 52,000 | 53,000 |
| Torrance | 17,000 | 17,000 |
| Dominguez | 11,000 | 11,000 |
| Rosecrans | 6,000 | 6,000 |
| Inglewood | 29,000 | 29,000 |
| Midway-Sunset | 73,000 | 71,000 |
| Ventura Avenue | 53,000 | 53,000 |
| Seal Beach | 32,000 | 33,000 |
| Others | 133,000 | 131,000 |
| Total, California | 642,000 | 642,500 |
| Decrease | | 500 |

### EASTERN

| | | |
|---|---|---|
| (Including Ill., Ind., Ky., Ohio, W. Va., Pa., and N. Y.) | 113,500 | 114,000 |
| Decrease | | 500 |

# *You may see your Tubing* EATEN AWAY



# *But* How About Your Casing?

EVERY corroded length of tubing is a bitter reminder that your casing may be in the same sorrowful condition — unless, of course, you had originally taken the precaution to use wrought iron pipe. But if some inferior material were used, sooner or later you may pay the piper—sooner or later water may trickle through corroded casing walls and cause more trouble. Besides, fishing jobs just thrive on such a state of affairs.

The little extra you pay for wrought iron is quickly counterbalanced by savings in other directions. *Reading* tubing and casing in particular have features that pay dividends on your investment. Reading pipe is the only wrought iron pipe double welded. It is insurance against leaky joints, splits, galled threads and crystallization.

READING IRON COMPANY

**Reading, Pennsylvania**

*Houston* *Tulsa* *Fort Worth* *Los Angeles* *San Francisco*

# READING PIPE

## GENUINE WROUGHT IRON

# Lack of Pipeline Outlets Brings Wilbarger Crude Congestion

HOUSTON, Aug. 2

CRUDE oil congestion is now giving concern to operators in the eastern Wilbarger county division of the Greater Wichita Falls district. Increased production has brought the Wilbarger daily average up from about 13,000 barrels, June 1, to around 35,000 barrels at present.

Additional crude could be produced in the Wilbarger area if pipeline outlets were adequate for its handling, possibly as much as 65,000 barrels daily under unrestrained development.

The greater Wichita Falls district, including the Wilbarger area, is now yielding approximately 100,000 barrels daily of high gasoline content crude. This raw material is always in demand in the general territory and there would be no present Wilbarger congestion were it not for a situation limiting pipeline outlets.

Most Wilbarger production, except in parts of the settled South Vernon field, comes from lands belonging to the W. T. Waggoner estate. Clauses in leasehold contracts with operating companies generally give the estate, which also owns the Waggoner Refining Co., an option to buy the oil produced from the property.

None questions the right of the Waggoner estate to reserve a call on the oil produced, which it has frequently exercised in periods of less plenteous supply for its refinery needs. The question arises, however, as to how far purchasing companies can go in providing additional pipeline facilities unless they are assured of sufficient runs over a period of time to justify construction expense.

It is reported from Wichita Falls that the Waggoner estate is negotiating with major pipeline interests to increase their facilities. Favorable action in that regard would result in further production increases and possibly some agreement among operators and the Waggoner estate regarding the levels daily average production would be allowed to reach.

Discussions looking toward prorating of production are reported to have gained no headway as yet. One operator in the prolific Grayback area, H&TC block 4, secs. 16, 17, 24, 25, 32 and 33, all on the Waggoner ranch, announced unwillingness to enter a prorating agreement until after completing two wells drilling to the 2400-foot sand pay.

Later, objections were made by another of the affected interests to a proposal that market outlets of the area should be prorated on a basis of acreage and production. There the discussions hung fire. At present they continue in the balance.

It has been estimated that the area of the Grayback pool and the consolidated development, four miles east of it in H&TC block 5, sec. 5, hold promise of averaging at least 10,000 barrels per acre from a total of about 3500 acres. Other developed acreage on the Waggoner ranch in Wilbarger county is now giving up only settled production.

The Consolidated pool, which was opened early in June by the Consolidated Oil Co., in completing a 550 barrel well at 1846-1857 feet, generally has initial productions averaging 100 to 250 barrels daily to its credit. About 15 wells have been drilled there.

Grayback development is at two sand pay levels. One yields initial productions of 200 to 300 barrels daily at about 2200 feet. The other is a more prolific horizon at approximately 2400 feet. Some of the wells in the deeper horizon yield as much as 2000 to 2500 barrels daily maximum. About 65 wells have been drilled to the two producing horizons.

A last week completion of outstanding importance was the No. 12-S well of the Fain-McGaha Oil Corp., which gaged 185 barrels the first hour from sand pays drilled at 2300-2311 and 2398-2435 feet. The 12-S well is in the southwest corner of the northeast quarter of sec. 24, block 4.

The Texas Co.'s No. 4 on its Waggoner "E" lease, completed early in June in sec. 24 also was good for more than 2000 barrels daily.

OPERATORS in the Grayback area are the Texas Co., the Waggoner Refining Co., the Fain-McGaha Oil Corp., Golding & Cochran, Barclay & Meadows, E. B. Lawson and the Petroleum Producers Association. In the Consolidated pool the operators also include Bass & Dillard, Hamilton & Martin and the Consolidated Oil Co.

Pipeline runs from the whole of Wilbarger county, which includes producing properties in the South Vernon pool outside the Waggoner estate, are now approximately as follows: The Texas Pipeline Co., 15,500 barrels daily; Humble Pipeline Co., 12,000 to 14,000 barrels daily; Waggoner Refining Co., 3600 to 4000 barrels daily, Sinclair Pipeline Co., South Vernon only, 850 barrels daily.

More than 10,000 barrels of the Wilbarger daily production comes from the Grayback area, the producing capabilities of which are steadily increasing.

The Rock Crossing area, which lies between the Grayback pool and the older South Vernon development, is the next in importance in terms of daily yields.

Developments in the Consolidated pool also may result in increased producing possibilities, either through extensions outside of the discovery section or through drilling to a possible deeper horizon.

*John R. McGinley, for several years in charge of the Marland Oil Co. land department office in Tulsa, recently moved to Ponca City. He is a vice-president of the Marland Production Co. and is to be found anywhere between New Mexico and the Mississippi River. Mr. McGinley was a newspaper man for several years and either reformed or retrograded when he entered the oil business, according to which business does the interpreting*

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R. K. Smith, formerly of the Pure Oil Co.'s geological department in west Texas, is now doing geophysical work out of the San Angelo office.

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Capt. O. H. Blaisdell of the Sweet Lake district of the Pure Oil Co., at Lake Charles, La., has recovered from two recent operations.

# Method of Handling Expected Output South of Little River Discussed

By Lawrence E. Smith
N. P. N. STAFF WRITER

TULSA, Aug. 4

WITH about 60 wells in the Little River southern extension, at points where they will soon ripen into completions, operators are devoting some thought to the handling of this field.

The manner of prorating the expected production is still to be determined. Originally it was planned to follow the Winkler county, Tex., method, basing production on a combination of acreage and potential production. There are objectors to the percentage method. Some look with favor on a plan proposed by T. B. Slick who would produce wells on a lease alternately.

Mr. Slick and others contend this would be an easier way of handling the situation and would call for less compressor equipment, the same machinery being used on more than one well.

However, discussion as to how proration is to be done will not result in action until after Aug. 15. Wells now in process of drilling and those 16 which have been completed and shut in to 100 barrels per day are to be opened to production of 1600 barrels per 40 acres Aug. 15 and this form of restriction will be continued, according to corporation commission order, until Sept. 10 when the other method, yet to be determined, will become effective.

Fears that the St. Louis pool, of Twp. 7-5 and 7-4 will develop to "major" proportions has led to the calling of a meeting for Aug. 7 to discuss the advisability of putting some form of restriction into operation. With more than two-score of wells drilling in the area, which is characterized by the Slick and Magnolia Hembree wells in 7-5—making upward of 9,000 barrels each—there is justification for looking at this pool as a "menace."

A proposal will be made at the meeting that the Little River plan of limiting production to 1600 barrels daily be followed from Aug. 15 to Sept. 10, then putting into effect whatever plan is agreed to by Little River operators for that pool.

Other business scheduled for this meeting pertains to the Mission pool, in the western part of Twp. 8-6, Seminole county. This field is being developed under drilling restrictions, but the agreement terminates Aug. 15. A renewal for 30 days will be asked.

Nearly all the pipe line companies that have served the Seminole area will have their extensions to the South Little River field completed by Aug. 15 when production starts. These are all short lines running from stations in the original Little River and Bowlegs fields. As trunk line capacity from the district handled the production at its peak—supplemented, of course, by considerable field storage and a fair sized tank car movement—pipe line companies generally are in position to move the guessed-at peak production of the new Little River extension.

Outstanding developments in any of the Mid-Continent fields were lacking during the week. One of the important tests of the Seminole area is the Gypsy Oil Co.'s No. 1 Mosar, SE NE of 1-8-5.* The well was drilled into the Wilcox sand topped at 4401 feet early in the week. The pay was drilled five feet. Maximum production by swabbing was 960 barrels in 24 hours. As the well is subject to restriction by agreement with neighboring operators, it is being put on the pump and will be produced only to 50 barrels daily.

IN THE same general area the Twin State Oil Co.'s No. 1 Hayes, NW NE SE of 8-8-6, is still contending with a bad hole. It is still in the Viola lime, which was topped at 4106 feet, and from this formation will swab about 115 barrels daily. As it is three-fourths of a mile from the Mission well of the Gypsy Oil Co., in 5-8-6, which is the nearest production, it is important as determining the scope of the Mission pool. Twin State has had considerable trouble getting this well to the Wilcox, a rig being burned down some weeks ago. They expect, however, to be out of their trouble soon and to finish the well.

In all this area, the best of the crop for the week was Pure Oil Co.'s No. 2 Harjo, NW SW NE of 11-7-6, Little River pool. The Wilcox sand was topped at 4193 feet and the drilling was stopped at 4212 feet. It was put on air lift and made 2922 barrels in 15 hours. The next location east, also belonging to the Pure Oil Co., was a 3000-barrel well completed several weeks ago.

Diagonal offset northwest of the new Pure well is the Carter Oil Co.'s No. 1 Moore, SE NE NW of 11-7-6. During the week it was deepened from 4218 to 4229 feet and swabbed 1185 barrels in 18 hours. The Wilcox in this well was topped at 4201 feet. It is wells of this character that swell production totals in a hurry when completions are bunched and the air lift is put to work. The Pure and Carter wells are outside the zone established by operators for the cooperative testing plan which proved the Little River extension to cover considerable acreage. They will, therefore, be produced to capacity.

IN THE St. Louis pool, Mid-Kansas Oil & Gas Co. registered with a big Simpson lime well. No. 1 Carter, SE SW NW of 25-7-4, flowed 2227 barrels in 20 hours from total depth of 4226 feet and at the close of the week was clicking along at 2600 barrels daily. It is not in virgin territory, offsets having been completed, but is the best of the group.

Unless the intensive drilling "play" to the south and southeast of the big Wilcox wells of Slick and Magnolia, in 19-7-5, uncovers production in that direction, the St. Louis pool campaign is going to reveal a very "spotty" territory. Magnolia has finished and plugged its No. 1 R. Bullock, NW SE SE of 18-7-5, three-quarters of a mile north of the big wells. It stopped in the Simpson formation, with the Wilcox not reached, at total depth of 4210 feet. The result from the Simpson was a hole full of water and the operators gave it up. The same company's test three-quarters of a mile east of the failure, this also being a No. 1 Bullock, in the NE SE SW of 17-7-5, at the close of the week was drilling at 4490 feet with nothing showing and looked doubtful of production.

Within a month enough wells south and southeast of the big ones will be completed, which will indicate the Wilcox possibilities this far west of the original Seminole district pools. The St. Louis pool as a whole, counting wells producing from the Wilcox, the Simpson and the Hunton lime, is

*Map, page 28, August 1 issue of NATIONAL PETROLEUM NEWS.

# Gas and Air in Oil Production

**INCREASING oil recovery with gas and air lift—practical factors in operation—application methods—principles in oil production—restoring pressure to old pools—its effect on current and future recovery—**

These and other phases now known to production engineers on this comparatively new method of oil recovery, have been discussed in past issues of NATIONAL PETROLEUM NEWS. The new era of oil recovery ushered in by the gas lift has been faithfully followed in NATIONAL PETROLEUM NEWS.

57 articles have appeared during the past year and a half, in addition to the dozens published since the introduction of the gas lift, written by such prominent engineers and geologists as James O. Lewis, Frank M. Brewster, John M. Lovejoy, S. F. Shaw, R. R. McLaughlin, E. A. Bennett, K. C. Sclater, E. V. Foran and Lester C. Uren.

*Those published in NATIONAL PETROLEUM NEWS since the first of 1927 on the use of gas, air and water in producing oil, are:*

**1928**

Effect of operating methods on oil recoverable July 25, p. 50
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Efficient utilization of gas Dec. 7, p. 37
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New control features in gas lift Feb. 23, p. 29
Gas lift helps solve Panhandle problems Feb. 2, p. 27
Natural gas dissolved in oil aids production Jan. 26, p. 71
Plugging water increases Powell yield Jan. 5, p. 77
Heats gas for lift put into well Jan. 5, p. 82

**National Petroleum News**

***Main Office:*** **1213 West Third St., Cleveland, Ohio**


averaging more than 40,000 barrels daily.

Sinclair Oil & Gas Co. has deepened its big well in Logan county, Okla., and made a bigger well. This well, No. 1-A Weber, SE corner of 18-19N-4W, had top of the Wilcox at 6087 feet (revised measurement) and has total depth of 6100 feet. It flowed at the rate of 145 barrels per hour after deepening. Its highest 24-hour production was 2682 barrels.

Roxana Petroleum Corp. interested the Kansas fraternity with a wildcat eight miles west of Newton, in Harvey county. No. 1 Houry Estate, NE SW SE of 11-23S-2W found top of the chat formation which is productive in the Lost Springs pool of Marion county, at 2940 feet. At 2961-62 feet the test made an estimated three million feet of gas. The company was to drill deeper.

Another showing in Kansas is that reported to have been found in the Galt Brown et al., No. 1 Foss, in the center of the NE of section 18-17S-1W, in McPherson county. While authentic information is lacking at the time of writing, it is reported this well filled up 300 feet with oil in an hour and a half after topping the chat at 2679 feet and the pay 2692 feet. Total depth of the test is reported as being 2694, two feet in the pay.

## "Drake's Folly" Broadcast By S. O. New York

NEW YORK, Aug. 4.—"Drake's Folly" will be the sketch presented next Tuesday night by the Standard Oil Co. of New York during its radio hour over WEAF and associated stations.

The sketch depicted events leading to the drilling of the Drake well at Titusville, Pa. The story was told from the discovery of the medicinal properties of oil by Samuel Kier, Pittsburgh druggist, through the organization of the Seneca Oil Co. by George H. Bissell, New York investment banker, and the drilling of the well by Col. Edwin L. Drake. Eleven persons were in the cast.

Soconyland sketches, by the Standard of New York are broadcast each Tuesday evening at 7:30 p.m., eastern daylight saving time by the National Broadcasting Co. and the following associated stations: WEAF, New York; WEEI, Boston; WTIC, Hartford; WJAR, Providence; WTAG, Worcester; WCSH, Portland; WGY, Schenectady, and WGR, Buffalo.

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Butler Mfg. Co., Kansas City, Mo. and Minneapolis, Minn. has added a new department to handle steel septic tanks. Copper bearing steel is used throughout and tanks are coated inside and outside with petroleum asphalt enamel to insure against rust from acids, alkalies and electrolysis.

# Small Well Discoveries Found In Scattered Texas Areas

Staff Special

HOUSTON, Aug. 3

DISCOVERY wells of more importance to their owners than significance for the industry generally were drilled into production in widely separated parts of Texas this week.

The Texas Gas Co.'s No. 1 Clint Heard, in the Refugio gas territory, near Corpus Christi, began producing about 700 barrels daily of 26.5 gravity Coastal crude at completion depth of 3702 feet. The well was originally a gasser at about 2400 feet, before deepening.

Although the general area has yielded high pressure gas for years, the present well ranks as the first successful commercial oil completion in the area.

In Duval county, a test of the Cain-Smith interests on the Palangana salt dome is being placed on the pump and is rated good for about 50 barrels daily. The well is a shallow one, drilled to the caprock level, on the Schallert land. Similar production has been taken from shallow wells on the Piedras Pintas salt dome, near the Palangana plug, for years. Many deep flank tests at Palangana so far have failed to result in oil production.

The first commercial discovery of sweet oil production west of the Pecos Valley, in west Texas, has been made by the Deep Rock Oil Co. in its No. 3 Grisham-Hunter test, Sec. 28, Block 59, Township 7, four and a half miles north of the Texas & Pacific railroad stop at San Martine, Culberson county.

After drilling to total depth of 1483 feet the Deep Rock test started making heads of 10 to 15 barrels every 20 minutes for the first day. Later, it made two-minute heads every hour. The oil tests 38 degrees, A.P.I. gravity. Various estimates credit the well with being good for 75 to 200 barrels daily.

The Deep Rock well is in the west Texas mountain area beyond the sulfur crude region broadly described as the Permian age salt basin. The producing horizon is in the Permian geologic section. It is reported to consist of brown sand associated with anhydrite.

In the sand pay belt fringing the general Ranger territory on the west, the No. 1 McCord test of the Kingwood Oil Co., Sec. 159, J. W. Meck survey, western Coleman county, is considered one of the most important discoveries of the region.

The Kingwood well, which is miles from production, found a sand pay at about 3490 feet, making two heads of 38 and 40 minutes' duration each. Work of completing the well is going ahead.

In sec. 35, GH & H survey, the Henshaw Oil Corp.'s No. 1 Harris, south of the town of Valera, is another important western Coleman county well. It made 90 barrels of high gravity oil after drilling eight feet into pay found at 2604 feet. The Henshaw interests have a block of 1050 acres surrounding the test.

The Panhandle region took on interest again when the Skelly Oil Co. completed its No. 3 Byrd-Armstrong, in the J. W. Proctor survey, Moore county, for 504 barrels in 17 hours at total depth of 3185 feet.

Skelly's well is barely across the Moore county boundary from Hutchinson county production north of the Canadian river. It is in line, however, with a trend projected northwest to the old Morton well, northeast of the inland town of Dumas.

## Seminole District Production by Companies and Leases, August 1 and July 25, 1928

**BOWLEGS**

| Company | Farm | S.T.R. | Aug. 1 Wells | Aug. 1 Prod. | July 25 Wells | July 25 Prod. |
|---|---|---|---|---|---|---|
| Amerada | Rascoe | 15- 8-6 | 8 | 1,320 | 8 | 1,320 |
| Atlantic | Baker | 1- 8-6 | 4 | 515 | 4 | 544 |
| Atlantic | Fleet | 23- 8-6 | 3 | 225 | 3 | 375 |
| Atlantic | Grayson | 21- 8-6 | 4 | 908 | 4 | 615 |
| Atlantic | A. Jones | 10- 8-6 | 2 | 49 | 2 | 75 |
| Atlantic | C. Jones | 9- 8-6 | 1 | 142 | 1 | 77 |
| Total Atlantic | | | 14 | 1,839 | 14 | 1,686 |
| Barnsdall | McNac | 28- 8-6 | 1 | 18 | 1 | 12 |
| Barnsdall | Murrow | 11- 8-6 | 4 | 665 | 4 | 684 |
| Total Barnsdall | | | 5 | 683 | 5 | 696 |
| Carter | Bowlegs | 15- 8-6 | 4 | 1,105 | 4 | 1,120 |
| Carter | Burden | 23- 8-6 | 2 | 35 | 2 | 275 |
| Carter | Harjoche | 15- 8-6 | 6 | 620 | 6 | 615 |
| Carter | Hilly | 23- 8-6 | 3 | 800 | 3 | 775 |
| Carter | Jones | 11- 8-6 | 4 | 765 | 4 | 745 |
| Carter | McGeisey | 21- 8-6 | 1 | 10 | 1 | 10 |
| Carter | Walker | 15- 8-6 | 4 | 370 | 4 | 360 |
| Carter | Wise | 23- 8-6 | 11 | 1,985 | 11 | 2,150 |
| Total Carter | | | 35 | 5,690 | 35 | 6,050 |
| Dixie | Culley | 11- 8-6 | 1 | 65 | 0 | 85 |
| Empire | Lacey | 15- 8-6 | 6 | 594 | 6 | 445 |
| Empire | Wise | 23- 8-6 | 2 | 327 | 2 | 297 |
| Total Empire | | | 8 | 921 | 8 | 742 |
| Gypsy | Bowlegs | 22- 8-6 | 1 | 210 | 1 | 200 |
| Gypsy | Bradley | 8- 8-6 | 1 | 3 | 1 | 2 |
| Gypsy | Cumsey | 8- 8-6 | 4 | 907 | 4 | 940 |
| Gypsy | Dosar | 7- 8-6 | 1 | 100 | 1 | 100 |
| Gypsy | Grayson | 13- 8-6 | 4 | 977 | 4 | 355 |
| Gypsy | Harjoche | 10- 8-6 | 3 | 1,052 | 3 | 1,015 |
| Gypsy | Henderson | 13- 8-6 | 1 | 70 | 1 | 0 |
| Gypsy | Jones | 11- 8-6 | 1 | 68 | 1 | 47 |
| Gypsy | Mission | 5- 8-6 | 1 | 50 | 1 | 50 |
| Gypsy | Mosar | 1- 8-5 | 1 | 0 | 0 | 0 |
| Gypsy | Walker | 15- 8-6 | 7 | 1,220 | 8 | 1,255 |
| Gypsy | Wise | 23- 8-6 | 2 | 250 | 2 | 300 |
| Total Gypsy | | | 27 | 4,907 | 27 | 4,264 |
| I. T. I. O. | Barnett | 23- 8-6 | 2 | 355 | 2 | 312 |
| I. T. I. O. | Barnett-B | 24- 8-6 | 1 | 178 | 1 | 161 |
| I. T. I. O. | Billington | 22- 8-6 | 5 | 495 | 5 | 506 |
| I. T. I. O. | Bowlegs | 22- 8-6 | 10 | 1,523 | 10 | 1,560 |
| I. T. I. O. | Davis | 22- 8-6 | 4 | 985 | 4 | 936 |
| I. T. I. O. | Fay | 13- 8-6 | 9 | 2,109 | 9 | 2,270 |
| I. T. I. O. | Goforth | 15- 8-6 | 12 | 1,253 | 12 | 1,318 |
| I. T. I. O. | Livingston | 15- 8-6 | 10 | 2,582 | 10 | 2,577 |
| I. T. I. O. | Lizzie | 13- 8-6 | 3 | 312 | 3 | 414 |
| I. T. I. O. | Walker | 15- 8-6 | 8 | 1,017 | 8 | 1,130 |
| I. T. I. O. | Williams | 12- 8-6 | 1 | 188 | ... | ..... |
| I. T. I. O. | Wilmott | 15- 8-6 | 4 | 220 | 4 | 334 |
| I. T. I. O. | Work | 24- 8-6 | 1 | 124 | 1 | 119 |
| I. T. I. O. | Youngblood | 24- 8-6 | 2 | 113 | 2 | 57 |
| Total I. T. I. O. | | | 72 | 11,454 | 71 | 11,694 |
| Magnolia | Davis | 13- 8-6 | 3 | 522 | 3 | 463 |
| Magnolia | Davis-M | 13- 8-6 | 1 | 214 | 1 | 279 |
| Magnolia | Hammond | 10- 8-6 | 7 | 982 | 6 | 1,039 |
| Magnolia | Rhodes | 12- 8-6 | 6 | 2,399 | 5 | 2,416 |
| Magnolia | Van Buskirk | 9- 8-6 | 1 | 315 | 1 | 274 |
| Total Magnolia | | | 18 | 4,432 | 16 | 4,471 |
| Marland | Maines | 7- 8-6 | 1 | ... | 1 | ... |
| McCulloch | Bowlegs | 22- 8-6 | 2 | 255 | 2 | 420 |
| Mid-Continent | Baker | 10- 8-6 | 4 | 856 | 4 | 894 |
| Mid-Continent | Bowlegs | 22- 8-6 | 1 | ... | 1 | 1 |
| Mid-Continent | Smith | 12- 8-6 | 6 | 365 | 6 | 480 |
| Total Mid-Continent | | | 11 | 1,221 | 11 | 1,375 |
| Minnehoma | Bowlegs | 15- 8-6 | 4 | 300 | 4 | 350 |
| Prairie | Gahagan | 23- 8-6 | 4 | 320 | 4 | 310 |
| Prairie | Harber | 10- 8-6 | 8 | 2,360 | 8 | 2,145 |
| Prairie | Jones | 11- 8-6 | 4 | 455 | 4 | 430 |
| Prairie | Templeton | 12- 8-6 | 6 | 1,845 | 6 | 1,915 |
| Prairie | Whitney | 23- 8-6 | 4 | 640 | 4 | 375 |
| Total Prairie | | | 26 | 5,620 | 26 | 5,175 |
| Pure | Reed | 14- 8-6 | 14 | 3,852 | 14 | 3,624 |
| Pure | Strother-D | 14- 8-6 | 4 | 393 | 4 | 229 |
| Pure | Strother-F | 10- 8-6 | 7 | 2,182 | 5 | 2,322 |
| Total Pure | | | 25 | 6,427 | 23 | 6,175 |
| Roxana | Taylor | 16- 8-6 | 5 | 119 | 5 | 91 |
| Shaffer | Lacy | 14- 8-6 | 3 | 300 | 3 | 250 |
| Sinclair | Bowlegs | 22- 8-6 | 1 | 35 | 1 | 25 |
| Sinclair | Cumsey | 10- 8-6 | 4 | 1,839 | 4 | 1,960 |
| Sinclair | Ellen | 11- 8-6 | 7 | 943 | 7 | 827 |
| Sinclair | Harjo | 14- 8-6 | 3 | 685 | 3 | 647 |
| Sinclair | Jones | 10- 8-6 | 7 | 923 | 7 | 773 |
| Sinclair | Taylor | 10- 8-6 | 4 | 1,776 | 4 | 1,373 |
| Sinclair | Taylor-W | 10- 8-6 | 3 | 801 | 3 | 946 |
| Sinclair | Walker | 22- 8-6 | 4 | 927 | 4 | 847 |
| Total Sinclair | | | 33 | 7,929 | 33 | 7,398 |
| Slick | Jones | 3- 8-6 | 1 | 57 | ... | ..... |
| Texas | Reed | 14- 8-6 | 11 | 1,570 | 11 | 1,690 |
| Tidal | Grayson | 13- 8-6 | 4 | 195 | 4 | 410 |
| Tidal | Harjoche | 10- 8-6 | 6 | 1,560 | 6 | 1,805 |
| Total Tidal | | | 10 | 1,755 | 10 | 2,215 |

(Continued on Page 42)

# Seminole District Production by Companies and Leases, August 1 and July 25, 1928

(Continued from Page 41)

| Company | Farm | S.T.R. | Aug. 1 Wells | Aug. 1 Prod. | July 25 Wells | July 25 Prod. |
|---|---|---|---|---|---|---|
| Twin State | Hays | 8- 8-6 | 1 | 5 | 1 | 110 |
| Twin State | Jones | 11- 8-6 | 3 | 10 | 3 | 115 |
| Total Twin State | | | 4 | 15 | 4 | 225 |
| TOTAL BOWLEGS | | | 324 | 56,879 | 321 | 56,267 |
| **EARLSBORO** | | | | | | |
| Amerada | Anderson | 15- 9-5 | 2 | 794 | 2 | 892 |
| Amerada | Cowden | 4- 9-5 | 7 | 1,629 | 7 | 1,482 |
| Amerada | Rogers | 3- 9-5 | 2 | 454 | 2 | 132 |
| Total Amerada | | | 11 | 2,877 | 11 | 2,506 |
| Atlantic et al | Foreman | 18- 9-5 | 1 | 149 | 1 | 149 |
| Barnsdall | Brown | 10- 9-5 | 4 | 3,019 | 4 | 2,677 |
| Barnsdall | F. Bruner | 2- 9-5 | 2 | 724 | 2 | 732 |
| Barnsdall | N. Bruner | 10- 9-5 | 3 | 1,540 | 3 | 1,304 |
| Barnsdall | Cudjo | 14- 9-5 | 1 | 26 | 1 | 25 |
| Barnsdall | D. Davis | 11- 9-5 | 3 | 218 | 3 | 227 |
| Barnsdall | J. Davis | 11- 9-5 | 4 | 1,334 | 4 | 1,312 |
| Barnsdall | M. Davis | 11- 9-5 | 3 | 70 | 3 | 78 |
| Barnsdall | Gibson | 9- 9-5 | 8 | 2,281 | 8 | 1,911 |
| Barnsdall | Hern | 15- 9-5 | 1 | 2 | 1 | 2 |
| Barnsdall | Ingram | 1- 9-5 | 8 | 992 | 8 | 1,493 |
| Barnsdall | Pack | 10- 9-5 | 4 | 188 | 4 | 166 |
| Barnsdall | Peter | 10- 9-5 | 4 | 104 | 4 | 186 |
| Barnsdall | Sango | 1- 9-5 | 5 | 4,950 | 5 | 4,564 |
| Barnsdall | Sebolka | 15- 9-5 | 1 | 406 | 1 | 437 |
| Barnsdall | H. Sullivan | 11- 9-5 | 1 | .... | 1 | 4 |
| Barnsdall | Sull-Harjo | 10- 9-5 | 2 | 41 | 2 | 45 |
| Barnsdall | Watsutke | 12- 9-5 | 4 | 1,083 | 4 | 1,462 |
| Total Barnsdall | | | 58 | 16,978 | 58 | 16,625 |
| Carter | Davis | 13- 9-5 | 2 | 220 | 2 | 260 |
| Carter | Sango | 1- 9-5 | 4 | 455 | 4 | 505 |
| Total Carter | | | 6 | 675 | 6 | 765 |
| Continental | Kays | 2- 9-5 | 2 | 65 | 2 | 15 |
| Continental | Spencer | 12- 9-5 | 4 | 1,335 | 4 | 1,250 |
| Total Continental | | | 6 | 1,400 | 6 | 1,265 |
| Crosbie | Bryant | 9- 9-5 | 1 | .... | 1 | .... |
| Empire | Barker | 12- 9-5 | 1 | .... | 1 | .... |
| Empire | Edmundson | 3- 9-5 | 3 | 118 | 3 | 158 |
| Total Empire | | | 4 | 118 | 4 | 158 |
| Gypsy | Bora | 16- 9-5 | 1 | .... | 1 | .... |
| Gypsy | Bruner | 10- 9-5 | 4 | 2,975 | 4 | 3,340 |
| Gypsy | B. Carter | 11- 9-5 | 9 | 4,182 | 9 | 3,935 |
| Gypsy | Earl | 16- 9-5 | 1 | 17 | 1 | 17 |
| Gypsy | Hunick | 5- 9-5 | 1 | 2,122 | 1 | 2,025 |
| Gypsy | Noble | 12- 9-5 | 4 | 2,120 | 4 | 2,137 |
| Gypsy | Peter | 10- 9-5 | 3 | 335 | 3 | 345 |
| Gypsy | Sango | 1- 9-5 | 6 | 2,355 | 5 | 2,217 |
| Gypsy | State | 16- 9-5 | 4 | 807 | 4 | 910 |
| Total Gypsy | | | 33 | 14,913 | 32 | 14,926 |
| Independent | Bruner | 10- 9-5 | 3 | 47 | 3 | 290 |
| Independent | Sullivan | 10- 9-5 | 2 | 40 | 2 | 30 |
| Independent | Knapp | 8- 9-5 | 3 | 2,004 | 3 | 2,090 |
| Indep.-Margay | Gaines | 11- 9-5 | 4 | 710 | 4 | 670 |
| Total Independent | | | 12 | 2,801 | 12 | 3,080 |
| Magnolia | Bryant | 9- 9-5 | 6 | 594 | 6 | 913 |
| Magnolia | Cowden | 4- 9-5 | 4 | 45 | 4 | 40 |
| Magnolia | Edmundson | 3- 9-5 | 3 | 20 | 3 | 20 |
| Magnolia | Holmsley | 11- 9-5 | 7 | 659 | 7 | 556 |
| Magnolia | Hyde | 13- 9-5 | 1 | 1,576 | 1 | 1,616 |
| Magnolia | Ingram | 10- 9-5 | 1 | 25 | 1 | 28 |
| Magnolia | Lena | 10- 9-5 | 3 | 55 | 3 | 56 |
| Magnolia | Seay | 12- 9-5 | 9 | 2,285 | 9 | 2,843 |
| Magnolia | Simpson | 10- 9-5 | 3 | 90 | 3 | 117 |
| Magnolia | Sparks | 11- 9-5 | 7 | 915 | 7 | 762 |
| Magnolia | Sullivan | 12- 9-5 | 3 | 84 | 3 | 87 |
| Total Magnolia | | | 47 | 5,709 | 47 | 6,085 |
| Mid-Continent | McCumber | 9- 9-5 | 7 | 90 | 7 | 90 |
| Mid-Kansas | Anderson | 14- 9-5 | 3 | 80 | 3 | 95 |
| Phillips | Dunnaway | 14- 9-5 | 1 | 30 | 1 | 30 |
| Prairie | Baker | 24- 9-5 | 1 | 50 | 1 | 50 |
| Prairie | Davis | 13- 9-5 | 5 | 3,095 | 5 | 3,175 |
| Prairie | C. Graham | 3- 9-5 | 2 | 15 | 2 | 25 |
| Prairie | O. Graham | 10- 9-5 | 4 | 1,290 | 4 | 1,215 |
| Prairie | Stidham | 11- 9-5 | 13 | 3,835 | 13 | 3,566 |
| Total Prairie | | | 25 | 8,285 | 25 | 8,031 |
| Roxana | Bayliss | 17- 9-5 | 1 | 13 | 1 | 13 |
| Roxana | Hearn | 13- 9-5 | 1 | 36 | 1 | 214 |
| Roxana | Spencer | 12- 9-5 | 2 | 1,346 | 2 | 998 |
| Total Roxana | | | 4 | 1,395 | 4 | 1,225 |
| Shaffer | Clark | 1- 9-5 | 3 | 449 | 3 | 510 |
| Sinclair | Foreman | 18- 9-5 | 1 | 15 | 1 | 15 |
| Sinclair | Hollins | 12- 9-5 | 1 | 30 | 1 | 40 |
| Sinclair | Sango | 2- 9-5 | 4 | 3,250 | 3 | 2,940 |
| Total Sinclair | | | 6 | 3,295 | 5 | 2,995 |
| Skelly | Sherry | 6- 9-5 | 1 | 3,540 | 1 | 3,737 |
| Skelly | Spencer | 12- 9-5 | 1 | 582 | 1 | 443 |
| Total Skelly | | | 2 | 4,122 | 2 | 4,180 |
| Superior | Ingram | 1- 9-5 | 1 | .... | 1 | .... |
| Superior | Walker | 2- 9-5 | 1 | 3,093 | 2 | 3,365 |
| Texas | Anderson | 2- 9-5 | 8 | 555 | 8 | 605 |
| Texas | Texas Brown | 10- 9-5 | 8 | 475 | 8 | 985 |
| Texas | Rogers | 5- 9-5 | 4 | 2,785 | 4 | 2,610 |
| Texas | Wilmott | 10- 9-5 | 7 | 495 | 7 | 580 |
| Total Texas | | | 27 | 4,310 | 27 | 4,780 |
| Tidal | Watkins | 9- 9-5 | 7 | 3,175 | 7 | 3,235 |
| Twin State | Barker | 12- 9-5 | 2 | 90 | 2 | 55 |
| Twin State | Hern | 2- 9-5 | 4 | 388 | 4 | 365 |
| Total Twin State | | | 6 | 478 | 6 | 420 |
| TOTAL EARLSBORO | | | 273 | 75,061 | 271 | 75,462 |
| **LITTLE RIVER** | | | | | | |
| Amerada | Nitey | 2- 7-6 | 3 | 1,455 | 3 | 1,510 |
| Amerada et al | Fore | 35- 8-6 | 2 | 405 | 2 | 330 |
| Total Amerada | | | 5 | 1,860 | 5 | 1,840 |
| Barnsdall | Hotulke | 22- 7-6 | 1 | 33 | 1 | 33 |
| Blackwell | Nitey | 35- 8-6 | 6 | 2,268 | 6 | 2,036 |
| Carter | Fish | 36- 8-6 | 6 | 960 | 6 | 900 |
| Carter | Larney | 24- 7-6 | 1 | 100 | 1 | 100 |
| Carter | Jackson | 11- 7-6 | 2 | 1,700 | 2 | 1,760 |
| Carter | Moore | 11- 7-6 | 1 | 675 | 0 | 0 |
| Carter | Wilson | 12- 7-6 | 1 | 100 | 1 | 100 |
| Total Carter | | | 11 | 3,535 | 10 | 2,860 |
| Continental | Cosar | 36- 8-6 | 5 | 1,550 | 4 | 1,515 |
| Continental | M. Cosar | 25- 8-6 | 1 | 85 | 1 | 350 |
| Gypsy | Brown | 33- 8-6 | 1 | 2,645 | 1 | 3,125 |
| Gypsy | Conard | 22- 7-6 | 1 | 100 | 1 | 100 |
| Gypsy | W. Cosar | 36- 8-6 | 1 | 390 | 1 | 402 |
| Gypsy | Campbell | 36- 8-6 | 2 | 210 | 2 | 182 |
| Gypsy | M. Cosar | 25- 8-6 | 1 | 42 | 1 | 57 |
| Gypsy | Denmark | 11- 7-6 | 1 | 100 | 1 | 100 |
| Gypsy | Nungee | 1- 7-6 | 1 | 27 | 1 | 30 |
| Gypsy | Hulhoke | 14- 7-6 | 1 | 100 | 1 | 100 |
| Gypsy | Pottie | 35- 8-6 | 4 | 966 | 4 | 1,000 |
| Gypsy | Renton | 11- 7-6 | 3 | 2,160 | 3 | 2,025 |
| Total Gypsy | | | 16 | 6,740 | 16 | 7,121 |
| Independent | Harris | 23- 7-6 | 2 | 200 | 2 | 200 |
| Independent | Davis | 2- 7-6 | 3 | 1,835 | 3 | 1,850 |
| Total Independent | | | 5 | 2,035 | 5 | 2,050 |
| I. T. I. O. | Campbell | 1- 7-6 | 1 | 252 | 1 | 278 |
| I. T. I. O. | Dungan | 35- 8-6 | 3 | 1,414 | 3 | 1,442 |
| I. T. I. O. | MA House | 1- 7-6 | 1 | 72 | 1 | 57 |
| I. T. I. O. | WE House | 1- 7-6 | 1 | 87 | 1 | 64 |
| I. T. I. O. | WE House-B | 2- 7-6 | 4 | 1,447 | 4 | 1,528 |
| I. T. I. O. | Hull | 26- 8-6 | 2 | 1,527 | 2 | 1,877 |
| I. T. I. O. | Jackson | 1- 7-6 | 3 | 947 | 3 | 1,017 |
| I. T. I. O. | McCulla | 1- 7-6 | 3 | 678 | 3 | 742 |
| I. T. I. O. | Nitey | 2- 7-6 | 6 | 516 | 6 | 549 |
| I. T. I. O. | Phoebe-A | 36- 8-6 | 3 | 506 | 3 | 543 |
| I. T. I. O. | Phoebe-B | 36- 8-6 | 4 | 237 | 4 | 162 |
| I. T. I. O. | Reed | 1- 7-6 | 1 | 61 | 1 | 36 |
| I. T. I. O. | Soketheche | 1- 7-6 | 3 | 710 | 3 | 716 |
| Total I. T. I. O. | | | 35 | 8,454 | 35 | 9,011 |
| Magnolia | Cruse | 2- 7-6 | 4 | 1,272 | 4 | 1,250 |
| Magnolia | Dixon | 31- 8-7 | 1 | .... | 1 | .... |
| Magnolia | Harjo | 14- 7-6 | 1 | .... | 1 | .... |
| Magnolia | Pottie | 35- 8-6 | 3 | 792 | 3 | 784 |
| Magnolia | Reed | 22- 7-6 | 1 | 100 | 1 | 100 |
| Total Magnolia | | | 10 | 2,164 | 10 | 2,134 |
| Mid-Continent | Bruner | 11- 7-6 | 1 | 100 | 1 | 100 |
| Mid-Cont. | Smith | 5- 7-7 | 1 | 70 | 1 | 70 |
| Mid-Cont. | Wadsworth | 36- 8-6 | 7 | 755 | 7 | 640 |
| Total Mid-Continent | | | 9 | 925 | 9 | 810 |
| W. B. Pine | Hoyecha | 26- 8-6 | 2 | 870 | 2 | 1,040 |
| Pine et al | Pottie | 36- 8-6 | 2 | 430 | 2 | 430 |
| Total Pine | | | 4 | 1,300 | 4 | 1,470 |
| Pure | Harjo | 11- 7-6 | 2 | 3,979 | 1 | 2,294 |
| Prairie | Chilcoat | 25- 8-6 | 3 | 1,265 | 3 | 1,455 |
| Prairie | Dungan | 35- 8-6 | 1 | 30 | 1 | 30 |
| Prairie | House | 2- 7-6 | 4 | 945 | 4 | 850 |
| Total Prairie | | | 8 | 2,240 | 8 | 2,335 |
| Reiter-Foster | Bunyard | 14- 7-6 | 1 | 100 | 1 | 100 |
| Roxana | Caesar | 11- 7-6 | 1 | 214 | 1 | 219 |
| Roxana | Hotulke | 23- 7-6 | 1 | 99 | 1 | 107 |
| Total Roxana | | | 2 | 313 | 2 | 326 |
| Shaffer | Narcome | 36- 8-6 | 1 | 48 | 1 | 45 |
| Sinclair | Cosar | 36- 8-6 | 3 | 2,310 | 3 | 2,425 |
| Sinclair | Teewee | 14- 7-6 | 1 | 100 | 1 | 100 |
| Total Sinclair | | | 4 | 2,410 | 4 | 2,525 |
| Slick | Williams | 15- 7-6 | 1 | 100 | 1 | 100 |
| Snowden-McS. | Tiger | 13- 7-6 | 1 | .. | 1 | 230 |
| Superior | Soketheche | 1- 7-6 | 1 | 10 | 1 | 10 |
| Texas | Coker | 1- 7-6 | 1 | 100 | 1 | 95 |
| Texas | Hotulke | 23- 7-6 | 3 | 1,070 | 3 | 1,130 |
| Total Texas | | | 4 | 1,170 | 4 | 1,225 |
| Tidal | House | 1- 7-6 | 3 | 600 | 3 | 605 |
| Tidal | Johnson | 1- 7-6 | 1 | 35 | 1 | 35 |
| Total Tidal | | | 4 | 635 | 4 | 640 |
| Twin State | Lowe | 25- 8-6 | 1 | 180 | 1 | 175 |
| TOTAL LITTLE RIVER | | | 138 | 42,134 | 135 | 41,235 |

## SUMMARY

| | | | | |
|---|---|---|---|---|
| **TOTAL BOWLEGS** | **324** | **56,879** | **321** | **56,267** |
| **TOTAL EARLSBORO** | **273** | **75,061** | **271** | **75,462** |
| **TOTAL LITTLE RIVER** | **138** | **42,134** | **135** | **41,235** |
| **TOTAL SEMINOLE CITY** | **298** | **49,884** | **300** | **51,124** |
| **TOTAL SEARIGHT** | **69** | **13,146** | **67** | **13,042** |
| **TOTAL** | **1,102** | **237,104** | **1,094** | **237,130** |
| **Average per well** | | **215** | | **217** |

# Completions in Oklahoma and Kansas, Week Ended August 4, 1928

## OKLAHOMA

### Beckham County

| Company | Well No. | Location | Depth | Init. Prod. |
|---|---|---|---|---|
| Sayre | 1 | SWc SW NW 24-9-23 W | T.D. 2687 | 20M |

### Carter County

| | | | | |
|---|---|---|---|---|
| Boring et al | 4 | SWc SE NW 10-4-2 W | 1920-2020 | 100 |
| Boring et al | 3 | NEc SW SE NW 10-4-2 W | 2346-2421 | 150 |
| Franklin | 2 | NWc SW SE 33-1-3 W | 3236-3282 | 25 |

### Coal County

| | | | | |
|---|---|---|---|---|
| I. T. I. O. | 1 | SWc SW NW 10-1-11 E | T.D. 1975 | Dry |

### Cotton County

| | | | | |
|---|---|---|---|---|
| Cullum-Jenkins | 3 | NWc NE NE 3-2-10 W | 2173-2195 | 20 |
| Moore et al | 1 | NEc NE SW 2-2-10 W | 2160-2179 | 80 |

### Creek County

| | | | | |
|---|---|---|---|---|
| Madden et al | 1 | NWc SW SE 13-15-9 E | 3390-3396 | 623 |
| Bryan-Emory | 1 | NWc NW SW 8-16-11 E | 2780-2792 | 50 |
| Henry-Avers | 4 | C SE SE 12-17-10 E | T.D. 1907 | 45 |
| Bu-Vi-Bar | 1 | NWc SE SE 20-17-7 E | 2782-2809 | 100 |
| Hayden et al | 3 | NWc SE SE 1-19-9 E | T.D. 2074 | Dry |

### Garvin County

| | | | | |
|---|---|---|---|---|
| Magnolia | 6 | SEc SW NW 16-1-3 W | 1742-1749 | 58 |
| Commerce Dev | 3 | SWc NW NW 13-4-8 W | T.D. 2304 | 30M |
| Magnolia | 7 | SWc NW SE 26-5-8 W | T.D. 2025 | 38M |

### Grady County

| | | | | |
|---|---|---|---|---|
| Commerce Dev | 1 | C NE NE 21-4-7 W | T D. 3310 | Dry |

### Kay County

| | | | | |
|---|---|---|---|---|
| Comar | 1 | SWc SW SE 5-28-1 W | T.D. 1770 | Dry |
| Burnham et al | 3 | SWc SE SE 32-29-1 E | T.D. 505 | Dry |

### Lincoln County

| | | | | |
|---|---|---|---|---|
| Willis | 1 | NWc NW SW 20-17-3 E | T.D. 4752 | Dry |

### Logan County

| | | | | |
|---|---|---|---|---|
| Roxana | 1 | SWc SW SW 20-19-4 W | T.D. 5035 | 1.4M |

### Mayes County

| | | | | |
|---|---|---|---|---|
| Bradley et al | 1 | NEc NE NE 2-21-18 E | T.D. 640 | Dry |

### Muskogee County

| | | | | |
|---|---|---|---|---|
| Reiter-Foster | 4 | C NW SW 21-17-16 E | T.D. 1043 | Dry |
| Shaffer et al | 1 | SEc SE SE 36-15-18 E | T.D. 950 | Dry |
| Cameron | 1 | CSL NW NW 6-14-17 E | T.D. 1919 | Dry |
| Routt | 1 | SWc NE NE 6-14-19 E | T.D. 817 | Dry |
| Bremaer | 1 | CEL NW NW 18-14-19 E | T.D. 814 | Dry |
| Metzger et al | 2 | CWL E½ W½ SW 1-14-18 E | 945-959 | 106 |
| Jolly | 7 | NEc NE SE 20-15-15 E | 1530-1555 | 10 |

### Okfuskee County

| | | | | |
|---|---|---|---|---|
| Umburm | 5 | CNL SE NW 2-10-11 E | 1790-1795 | 75 |
| Umburm | 2 | CNL NE NW 2-10-11 E | 1728-1765 | 25 |

### Okmulgee County

| | | | | |
|---|---|---|---|---|
| Papoose | 9 | CWL NE SW 21-15-14 E | 2175-2180 | 30 |
| Sheldon et al | 3 | CNL SW SE 15-13-12 E | 2868-2893 | 65 |
| Rebold | 1 | SEc SE SW 3-14-11 E | 1907-1918 | 10 |
| Curtis | 1 | NWc NW NE 12-15-12 E | 1248-1297 | 30 |

### Osage County

| | | | | |
|---|---|---|---|---|
| Okla. Nat'l | 786 | SEc SE SE 10-21-10 E | T.D. 1717 | .5M |
| Moore-Ohio Osage | 5 | SWc NE SW 9-21-9 E | 409-419 | 10 |
| Osage | 389 | NEc NE NW 32-24-12 E | T.D. 1034 | 2.5M |
| Peters | 4 | SWc SW NW 26-25-9 E | 2146-2188 | 125 |
| Kewanee | 11 | SWc NE NE 28-27-6 E | 2906-2968 | 131 |
| Breen | 1 | NEc NE NE 3-28-10 E | 1830-1834 | 10 |

### Pawnee County

| | | | | |
|---|---|---|---|---|
| Fortner et al | 1 | 27-20-9 E | T.D. 1915 | 1.5M |
| Bird-Hanley et al | 1 | NEc SE NE 12-20-8 E | T.D. 2927 | Dry |

### Pottawatomie County

| | | | | |
|---|---|---|---|---|
| Magnolia | 2 | NEc NE SW 25-7-3 E | T.D. 4442 | Dry |
| Interocean | 1 | NEc NE SE 23-7-4 E | 4078-4128 | 1997 |
| Gypsy | 5 | SEc SW NE 19-7-4 E | 3852-3977 | 30 |
| Magnolia | 3 | SEc SE SE 15-7-4 E | 3766-3920 | 275 |
| Stogner et al | 1 | SWc SW SW 14-7-4 E | 3655-3846 | 100 |
| Independent et al | 3 | SWc SW SW 14-7-4 E | 3823-4030 | 60&10M |

### Seminole County

| | | | | |
|---|---|---|---|---|
| Gypsy | 6 | SWc NE NW 18-5-8 E | 2652-2720 | 400 |
| Gypsy | 5 | SEc NE NW 18-5-8 E | 3605-3690 | 400 |
| Gypsy | 4 | NEc SE NW 18-5-8 E | 2600-2693 | 300 |
| Anderson-Prichard | 3 | SWc SW NE 18-5-8 E | 2540-2615 | 400 |
| Sands | 1 | SWc SW SE 4-7-7 E | 4312-4321 | 350 |
| Magnolia | 9 | NWc NW SW 11-9-5 E | 3557-3567 | 40 |
| Crosbie | 1 | SWc SW NW 9-9-5 E | 4296-4415 | 6480 |
| Superior | 2 | SWc NE NE 2-9-5 E | 4430-4448 | 472 |

### Stephens County

| | | | | |
|---|---|---|---|---|
| Pace et al | 3 | SEc NE NW 18-2-7 W | T.D. 1466 | 8.25M |
| Magnolia | 8 | NEc NW NE 34-1-8 W | 1656-1662 | 25 |
| Hanbury | 2 | SEc NE SE 28-1-8 W | 2198-2202 | 50 |

### Tulsa County

| | | | | |
|---|---|---|---|---|
| Riverland | 1 | SEc NE NE 4-19-11 E | T.D. 2283 | Dry |
| Thompson et al | 5 | SWc SW NW 10-16-12 E | T.D. 2500 | Dry |

### Wagoner County

| | | | | |
|---|---|---|---|---|
| Crighton | 3 | SWc SW NW 22-18-17 E | T.D. 350 | Dry |

## KANSAS

### Butler County

| | | | | |
|---|---|---|---|---|
| Empire | 3 | NW SW SE 22-27-5 E | 2714-2751 | 160 |
| Empire | 2 | NW SW NE 27-27-5 E | 2722-2752 | 100 |
| Garden et al | 3 | NE SW NE 6-27-6 E | 2712-2746 | 350 |

### Cowley County

| | | | | |
|---|---|---|---|---|
| Kentucky Nitro & Oxyg. | 2 | C Lot-15, 18-33-7 E | 990-993 | 1M |
| Kentucky Nitro & Oxyg. | 3 | Lot-9, Blk-2, 13-33-6 E | T.D. 998 | Dry |
| McCullough et al | 1 | NWc SW 22-31-4 E | T.D. 2450 | Dry |

### Greenwood County

| | | | | |
|---|---|---|---|---|
| Globe | 2 | NEc SW 15-26-13 E | T.D. 1550 | Dry |
| Ward et al | 1 | NEc SW 11-26-12 E | T.D. 1720 | Dry |
| Simmons et al | 1 | NWc NE 1-23-12 E | T.D. 1785 | Dry |

### Marion County

| | | | | |
|---|---|---|---|---|
| Phillips Pet | 1 | NW NE SE 14-17-4 E | 2336-2381 | 50 |
| Youker et al | 1 | SEc SW 3-17-4 E | 2350-2393 | 30 |

### McPherson County

| | | | | |
|---|---|---|---|---|
| Gardner | 1 | C NW SW 32-18-2 W | 2946-2988 | 7M |

### Sedgwick County

| | | | | |
|---|---|---|---|---|
| Western | 1 | NEc SE 29-29-2 E | T.D. 3576 | Dry |

### Sumner County

| | | | | |
|---|---|---|---|---|
| De Forrest Drlg | 1 | SWc NE NE NE 35-30-2 W | 1919-1926 | 3M |

# Drilling Operations in Oklahoma and Kansas, Week Ended August 4, 1928

| | August 4 Loc. | Rigs | Drg. | S.D. | Total | Week Ended July 28 Loc. | Rigs | Drg. | S.D. | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| OKLAHOMA | | | | | | | | | | |
| Osage | 5 | 5 | 33 | 3 | 46 | 7 | 8 | 31 | 3 | 49 |
| Bristow-Cushing | 6 | 3 | 35 | 7 | 51 | 5 | 3 | 36 | 6 | 50 |
| North Oklahoma | 7 | 4 | 52 | 32 | 95 | 6 | 6 | 55 | 29 | 96 |
| South Oklahoma | 9 | 13 | 78 | 34 | 134 | 11 | 7 | 84 | 26 | 128 |
| Muskogee | .. | 5 | 47 | 24 | 76 | .. | 5 | 53 | 23 | 81 |
| Okmulgee-Bristow | 14 | 30 | 55 | 22 | 121 | 14 | 25 | 61 | 20 | 120 |
| Seminole Dist | 34 | 84 | 298 | 21 | 437 | 32 | 71 | 283 | 20 | 406 |
| Total Oklahoma | 75 | 144 | 598 | 143 | 960 | 75 | 125 | 603 | 127 | 930 |
| KANSAS | *87 | ... | 155 | 72 | 314 | *83 | ... | 154 | 67 | 304 |
| GRAND TOTAL | 162 | 144 | 753 | 215 | 1,274 | 158 | 125 | 757 | 194 | 1,234 |

*Location and Rigs combined.

# Air Law Lectures Given By Union Oil Co.

LOS ANGELES, Aug. 4.—A lecture course on air law, as a result of a special lectureship established by the Union Oil Co. of California at the University of Southern California here, will be given at the university during August by Dr. Otto H. Schreiber, head of the Institute of Air Law at the University of Koenigsberg, Germany.

Among those instrumental in bringing Dr. Schreiber to Los Angeles are Gurney E. Newlin, director of the Union Oil Co., chairman of the minerals section of the American Bar Association and a commissioner from California to the National Conference of Commissioners on Uniform State Laws.

W. L. Stewart, president of the Union Oil Co., in commenting on the air law lectureship at the university, said:

"Coincident with the incredibly rapid growth of aviation as everyday commercial transportation comes the immediate necessity of developing our knowledge of aeronautic legislation, so that it may meet our own growing needs. As we have sponsored laboratory research and scientific experimentation in aeronautic motors, plane construction, fuels, and flying conditions, so much we now turn our attention also to equally imperative demands in the field of aeronautic law. We are happy to be able to bring to the Pacific Coast such a man as Dr. Schreiber, who is to head a comprehensive and intensive course of lectures in this latest legal problem."

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The Superheater Co., New York City, has put out a booklet of steam tables recently published. They give the properties of saturated and superheated steam from 0.0886 to 3300 pounds absolute pressure. They have been compiled, it is stated, from Marks and Davis A.S.M.E. committee on properties of steam and extension of steam tables. A copy of the steam tables will be sent to anyone requesting it. The company also announces the seventh edition of its book, "Superheat Engineering Data," which sells for $1.

# Completions in N. E. Central, West, Panhandle and North Texas, Week Ended July 28, 1928

## NORTH AND EAST CENTRAL

### Brown County

| Company | Well Farm | Location Survey | Depth | Init. Prod. |
|---|---|---|---|---|
| Cranfill-Reynolds.. | 1-DeBusk | Padillo | T.D. 2083 | Dry |
| Milham..... | 2-Resser | Cross | T.D. 1342 | Dry |
| Moore..... | 2-Munselle | Beck | T.D. 1214 | Dry |
| Stuvent et al..... | 1-Perry | Morrow | T.D. 1743 | D y |
| S.W.S..... | 3-Baugh | Neill | T.D. 2230 | Dry |
| Young Bros. et al.. | Hickman | Benson | T.D. 1315 | Dry |
| Anchor..... | 1-Taylor | Majors | 530-542 | 5 |
| Anderson et al..... | 1-Williams | Beck | T.D. 1333 | .15M |
| Bradstreet.....13 | -Stout | Smith | 1149-1181 | 25 |
| Burris et al..... | 5-Newton | Curling | 1187-1213 | 150 |
| Charter..... | 2-Byler | T&NO | 1331-1336 | 25 |
| Buffalo..... | 6-Perry | Kenney | 1085-1094 | 150 |
| Cranfill-Reynolds..10 | -Eubanks | Mitchell | 1240-1252 | 60 |
| Hammond-Garrett. | 3-Curry | Kenney | 1075-1090 | 40 |
| Humble.....14 | -Kilgore | Delgorda | 1155-1190 | 20 |
| Kone Prod..... | 6-Hickman | Benson | 1273-1286 | 30 |
| Riodan et al..... | 1-Riodan | Jennings | 1178-1179 | 18 |

### Callahan County

| | | | | |
|---|---|---|---|---|
| Dickey..... | 1-Williams | D&DA | T.D. 700 | Dry |
| Gibson-Johnson.... | 4-Wylie | D&DA | T.D. 865 | Dry |
| Swoveland et al.... | 2-Hall | Jackson | T.D. 1005 | Dry |

### Cherokee County

| | | | | |
|---|---|---|---|---|
| Rowan et al..... | 1-Schleither | Walters | T.D. 4305 | Dry |

### Coleman County

| | | | | |
|---|---|---|---|---|
| Derby..... | 2-Jennings | Lipscomb | 1178-1193 | 71 |

### Concho County

| | | | | |
|---|---|---|---|---|
| Beall..... | 1-Samson | H&TC | T.D. 1506 | Dry |

### Eastland County

| | | | | |
|---|---|---|---|---|
| Root et al..... | 4-Ray | H&TC | T.D. 4230 | Dry |
| Panhandle..... | 2-Brewer | Finley | T.D. 1695 | Dry |
| Hickock Prod. & Dev. | 1-Rick | H&TC | T.D. 3783 | Dry |
| Harbin..... | 1-Turner | H&TC | T.D. 1355 | Dry |
| Amerada..... | 1-Martin | Leahy | T.D. 1020 | Dry |
| Goodwin et al..... | 1-Parker | Norman | 1462-1503 | 26 |
| Lewis-Moore | 3-Harbin | H&TC | 1248-1266 | 76 |

### Jack County

| | | | | |
|---|---|---|---|---|
| Connell-Wixon..... | 8-Ellis et al | Williams | 458-488 | 20 |
| Northwestern..... | 6-Richards et al | BBB&C | T.D. 552 | Dry |

### Limestone County

| | | | | |
|---|---|---|---|---|
| McDonald Bros.... | 1-Webster | Jackson | T.D. 2987 | Dry |

### McCulloch County

| | | | | |
|---|---|---|---|---|
| Wakefield et al.... | 1-Barton | Bleike | 936-937 | 5M |

## NORTH TEXAS

### Archer County

| Company | Well Farm | Location Survey | Depth | Init. Prod. |
|---|---|---|---|---|
| Stumpf-Hines..... | 5-Perkins et al. | DCSL | 618-628 | 35 |
| Carter..... | 1-Parkey | H&TC | 1715-1716 | 12 |
| Johnson..... | 8-Wilson | Geraldine | 1564-1575 | 102 |
| Stumpf-Hines..... | 4-Perkins | DCSL | 617-628 | 35 |
| Texas..... | 3-Griffith | Denton Co. Sch. Ld. | 997-1005 | 52 |
| Humble..... | 1-Logan | Taylor | T.D. 1276 | Dry |
| Texas..... | 1-Wilson | ATNCL | T.D. 1604 | Dry |
| Weiser..... | 1-Anderson | Clark et al. | T.D. 944 | Dry |

### Wichita County

| | | | | |
|---|---|---|---|---|
| Hammon-Garrett.. | 2-Mitchell | Lewis | 1622-1635 | 78 |
| Hines et al..... | 2-Waggoner | GC&SF | 1385-1394 | 100 |
| Bailey et al. Drlg.. | 1-Kasper | TE&L | T.D. 2012 | Dry |

### Wilbarger County

| | | | | |
|---|---|---|---|---|
| Murchison..... | 2-Waggoner | SP | T.D. 2573 | Dry |
| O'Neal..... | 1-Waggoner | H&TC | T.D. 2504 | Dry |
| Waggoner Farm... | 3-Waggoner | H&TC | 1863-1885 | 280 |
| Texas.....355 | -Waggoner | H&TC | 2404-2418 | 1900 |
| Lawson..... | 5-Waggoner | H&TC | 2315-2334 | 175 |
| Fain-McGaha..... | 6-Waggoner | H&TC | 2296-2308 | 125 |
| Consolidated..... | 5-Waggoner | H&TC | 1841-1860 | 400 |
| Bark'ley-Meadows.. | 4-Waggoner | H&TC | 1869-1885 | 75 |
| Barkley-Meadows.. | 3-Waggoner | H&TC | 1862-1888 | 138 |

### Young County

| | | | | |
|---|---|---|---|---|
| Petroleum Prod.... | 3-Henning | TE&L | 1034-1097 | 40 |
| Hall et al..... | 1-Davis | TE&L | 546-567 | 350 |
| Elliott et al..... | 1-Stewart | TE&L | T.D. 1050 | Dry |
| Hill et al..... | 1-Routan | TE&L | T.D. 901 | Dry |
| Kleener-Hill-West.. | 4-Hawkins | TE&L | T.D. 524 | Dry |
| Parker et al..... | 1-McCrary | TE&L | T.D. 700 | Dry |
| Wixon-York State.. | 1-Baker | Young | T.D. 655 | Dry |
| Atlantic et al..... | 1-Garvey | Compere | T.D. 727 | Dry |

## PANHANDLE

### Carson County

| | | | | |
|---|---|---|---|---|
| Empire..... | 1-Dauer | I&GN | T.D. 2441 | 32M |

### Gray County

| | | | | |
|---|---|---|---|---|
| Texas..... | 1-Mayberry | H&GN | T.D. 2770 | 196 |
| Sparton..... | 1-Davidson | H&GN | T.D. 3230 | 140 |
| Magnolia..... | 2-Bowers | H&GN | 3015-3018 | 65 |
| Danciger et al..... | 2-Jackson | H&GN | 2965-3087 | 300 |
| Danciger et al..... | 9-Jackson | H&GN | 2985-3087 | 300 |

### Hutchinson County

| | | | | |
|---|---|---|---|---|
| Wrist Pin et al.... | 1-Bost | TT | T.D. 2210 | 45M |
| Phillips..... | 2-Land et al. | H&TC | 2971-2986 | 54 |
| Phillips..... | 2-Chap et al. | H&TC | 2943-2969 | 140 |

## WEST TEXAS

(West Texas Report not available.)

# New Field Operations in Oklahoma, Kansas, Panhandle, North, North Central and West Texas, Week Ended August 4, 1928

## OKLAHOMA

### Carter County

| Company | Well No. Farm | Location |
|---|---|---|
| Magnolia..... | 2-Denny | NWc NE NE 30-1-3 W |
| Magnolia..... | 4-Hefner | NEc NW SW 33-1-3 W |
| Anderson et al..... | 1-Eaves | 24-1-3 W |
| I. T. I. O..... | 1-Cook | SEc SW NW 10-1-11 E |

### Cotton County

| | | |
|---|---|---|
| Moore et al..... | 1-Cobb | SWc SW NE 2-2-10 W |
| Bennett..... | 1-Glesner | NEc NE SW 30-1-9 W |

### Creek County

| | | |
|---|---|---|
| Sinclair..... | 1-Morton | NWc SW SE 27-14-10 E |
| Madden et al..... | 3-Farmer | SEc NW SE 13-15-9 E |
| Kennedy et al..... | 3-Strip | SWc SW SW 24-18-11 E |
| Henry et al..... | 1-Talamase | C NW SW 7-15-7 E |
| Tidal..... | 4-Roberson | SEc NW SE 20-17-7 E |

### Grady County

| | | |
|---|---|---|
| Carter..... | 7-Horton | SWc SE SE 8-3-5 W |
| Twin States..... | 3-Cox | NEc NE SE 14-4-8 W |
| Commerce Dev.... | 3-Parks | SWc SW SW 13-4-8 W |
| Meridian..... | 3-Serrata | SWc NW SW 25-5-8 W |

### Hughes County

| | | |
|---|---|---|
| Sutton et al..... | 1-Meadors | NEc NE SW 27-9-10 E |

### Kay County

| | | |
|---|---|---|
| Royalty..... | 1-Manley | 9-26-1 E |

### Lincoln County

| | | |
|---|---|---|
| Slick et al..... | 1-Kimball | SEc SE SW 5-14-4 E |

### Logan County

| Company | Well No. Farm | Location |
|---|---|---|
| Blackwell..... | 1-Quigley | SEc SE NW 28-18-4 W |

### Muskogee County

| | | |
|---|---|---|
| Evans et al..... | 1-Cobb | SEc NW SW 6-14-19 E |
| Summers..... | 2-Howard | CNL NW SE 29-15-16 E |

### Noble County

| | | |
|---|---|---|
| Alco Royalty..... | 1-Waltermire | SEc SE NW 33-21-1 W |

### Okfuskee County

| | | |
|---|---|---|
| Umburm..... | 3-Tiger | NEc NE NW 2-10-11 E |
| Sands et al..... | 1-Knight | NWc NW SE 16-11-9 E |

### Okmulgee County

| | | |
|---|---|---|
| Grandfield et al.... | 2-Anderson | SEc SW SW 8-14-15 E |
| Tidal..... | 1-Thornburg | SEc NW NW 7-12-12 E |
| Kavanough..... | 1-Unallotted | SWc NW NW 1-13-12 E |
| Noble..... | 1-Gay | NEc NE NW 12-15-12 E |

### Osage County

| | | |
|---|---|---|
| Osage.....390.... | | CEL SW NE 32-24-12 E |
| I. T. I. O.....397.... | | SWc NE SW 4-23-9 E |
| I. T. I. O.....272.... | | SWc NW NW 32-25-11 E |
| Minnehoma..... 2.... | | CWL W½ SE 11-26-8 E |

### Pontotoc County

| | | |
|---|---|---|
| Ramsey..... | 1-Fee | SWc NW NE 6-4-7 E |
| Blackstock et al.... | 1-Patterson | NWc NW NW 29-5-8 E |
| Tillman et al..... | 1-Lowery | NWc NE SE 31-5-5 E |
| Homaokla..... | 6-Perry | SWc SE NE 19-5-8 E |

# New Field Operations in Oklahoma, Kansas, Panhandle, North, North Central and West Texas, Week Ended August 4, 1928 (*Continued*)

### Pottawatomie County

| Company | Well No. Farm | Location |
|---|---|---|
| Slick | 2-Smith | NEc NW SE 30-7-5 E |
| Pure | 1-Thrailkill | SWc SW NW 19-7-5 E |
| Magnolia | 1-Fyke | NEc SE SE 20-7-5 E |
| Magnolia | 1-White | SEc SW NE 20-7-5 E |
| Sinclair | 1-Nadasha | NEc SW NW 29-7-5 E |
| Independent | 2-Blandin | NWc NW SW 30-7-5 E |
| Independent et al | 1-Matat | NWc NE SE 30-7-5 E |
| Gypsy | 2-LeCalir | NEc SW SE 23-7-4 E |
| Interocean | 5-McGEE | SWc NE SE 23-7-4 E |
| Interocean | 6-McGee | SEc NW SE 23-7-4 E |
| Shaffer | 2-Cherry | NWc SE SE 23-7-4 E |
| Sinclair | 6-Blandin | SEc NW SW 24-7-4 E |
| Darby | 1-Hathcock | NEc NE NE 22-7-4 E |
| Magnolia | 1-Germany | SEc SE NW 30-9-5 E |

### Seminole County

| | | |
|---|---|---|
| Texas | 3-Lucy | NWc SE SE 18-5-8 E |
| Gypsy | 9-Peter | NWc NE NW 18-5-8 E |
| Sinclair | 1-Nakotche | NEc NW SW 18-5-8 E |
| Texas | 2-Lucy | NEc SW SE 18-5-8 E |
| Anderson-Pritchard | 6-Culley | NWc NE SE 18-5-8 E |
| Greis | 2-Lucy | SWc SE NW 18-5-8 E |
| Gilcrease | 1-Reed | SEc SW NW 18-5-8 E |
| Gypsy | 7-Peter | SWc SE NW 18-5-8 E |
| Gypsy | 8-Peter | NWc SE NW 18-5-8 E |
| Carter | 3-Thomas | SEc NE SE 11-7-6 E |
| Mid-Continent | 4-Bruner | NEc SE SE 11-7-6 E |
| Blackwell | 3-Talley | NWc SW SW 14-7-6 E |
| Carter | 4-Tewee | SEc SW NE 14-7-6 E |
| Slick | 7-Williams | SWc SE NE 15-7-6 E |
| Slick | 8-Williams | NWc SE NE 15-7-6 E |
| Gypsy | 3-Canard | SWc NE NE 22-7-6 E |
| Magnolia | 5-Reed | NWc SE NE 22-7-6 E |
| Gypsy | 3-Cotcha | NEc NW SW 23-7-6 E |
| Gypsy | 4-Cotcha | NWc NE SW 23-7-6 E |
| Independent | 6-Harris | SWc SE NW 23-7-6 E |
| Texas | 3-Hotulke | NEc SW NW 23-7-6 E |
| Texas | 4-Hotulke | SEc SW NW 23-7-6 E |
| Pure | 8-Strothers | NEc NE NW 10-8-6 E |
| Carter | 1-Fuswa | NWc NE NW 18-8-6 E |
| I. T. I. O. | 1-Lawyer | SEc SE NW 26-8-6 E |
| McMahon et al | 1-Harjo | SWc NW SE 7-8-6 E |

### Stephens County

| | | |
|---|---|---|
| Page et al | 1-Enloe | NWc SW NE 31-2-7 W |
| Petroleum Prod | 7-Bond | NEc NW NW SW 7-2-7 W |
| Franklin | 5-Brittain | NWc NW SE 12-1-4 W |
| Amerada | 3-Hanson | SWc SW SW 12-1-4 W |
| Magnolia | 1-Dolen | SWc SW SW 17-1-8 W |

### Tulsa County

| | | |
|---|---|---|
| Ellen | 8-Island | NWc NE NE 25-18-14 E |
| Altitude | 4-Perryman | NWc SW SW SW 30-19-13 E |

### Wagoner County

| | | |
|---|---|---|
| Turley Bros | 1-Haynie | NEc NW NW SE 12-17-15 E |
| Crighton | 4-Childer | NWc NE SW 22-18-17 E |

## KANSAS

### Butler County

| | | |
|---|---|---|
| Landon | 1-Palmer | SW NE NE 6-27-6 E |

### Chautauqua County

| | | |
|---|---|---|
| Elmwood | 3-Helton | C NW NE 13-32-9 E |

### Cowley County

| | | |
|---|---|---|
| Minnehoma | 4-Denton | SE NE SE 4-31-8 E |
| Minnehoma | 3-Ferguson | NEc SE 4-31-8 E |
| Shawver et al | 1-Cook | NEc 20-30-4 E |

### Elk County

| | | |
|---|---|---|
| Waggoner-Spencer | 1-Stewart | NWc SW 19-28-12 E |
| Benje et al | 1-Bateson | SWc NW 24-28-11 E |
| Shawver | 1-Ferguson | SW NW NW 3-31-8 E |
| Smith-Ash | 1-Miller | SE SW NE 16-31-9 E |

### Ellis County

| | | |
|---|---|---|
| Brouk et al | 1-Wagner | C SE SE 35-15-16 W |
| Moncreif-Thomas | 1-Johnson | SEc NW 9-13-19 W |
| Empire | 1-Wann | NEc 21-12-19 W |

### Greenwood County

| | | |
|---|---|---|
| Polhamus | 1-Hull | SE SE NE 24-24-8 E |
| Ladow | 1-Lawrence | SE SW SE 4-27-13 E |
| Lassen et al | 7-Wilkinson | NEc SE NE SW 6-25-9 E |
| Empire | 10-Ott | NE SE NW 25-22-12 E |

### Marion County

| | | |
|---|---|---|
| Hannah et al | 1-Bankratz | NEc SW 13-20-3 E |
| Mayre et al | 1-Propp | SWc NE 10-18-2 E |
| Phillips | 2-Harwood | NWc SW 13-17-4 E |

### McPherson County

| | | |
|---|---|---|
| Mid-Cont. Pet. | 1-Hawkenson | NWc SE 32-18-2 W |

### Russell County

| | | |
|---|---|---|
| Liggett et al | 1-Mair | SE NE SE 8-11-15 W |
| Mid-West Explo. et al. | 33-Bronson | SE SW SE 20-11-15 W |

### Sedgwick County

| | | |
|---|---|---|
| McGlashan et al | 1-Buckles | NWc SE 3-28-1 W |

### Woodson County

| | | |
|---|---|---|
| Empire | 1-Berry | NWc SW 27-23-13 E |

## TEXAS

## NORTH AND NORTH CENTRAL

### Anderson County

| | | | |
|---|---|---|---|
| Humble | 1-Hall | .... | Survey: Albright |

### Archer County

| Company | Well No. Farm | Location | Survey |
|---|---|---|---|
| Long et al | 1-Krupka et al. | Blk-17 | Scott |
| Weiser | 2-Anderson | Sec-89, Blk-4 | Clark et al. |
| Johnston | 1-Garvey | Sec-1859 | TE&L |
| Gulf Prod | 2-Hayter | Sec-2409 | TE&L |
| Decker et al | 1-McCarty | ..... | Chisholm |
| Burns-Humble | 1-Harris et al. | Blk-65 | Harris |
| Gulf Prod | 2-Keys | ..... | Richardson |
| Darr-Pet. Prod | 1-Edwards | Blk-27 | Bruner |
| Staley et al | 1-Abercrombie et al. | Blk-47 | Harris |
| Arco | 5-Perkins et al. | League-3, Blk-14 | DCSL |
| Stumpf-Hines | 6-Perkins et al. | League-3, Blk-13 | DCSL |

### Brown County

| | | | |
|---|---|---|---|
| Humble | 15-Kilgore | Sec-3, Blk-789 | Delgrado |
| Denninger et al | 1-Prater | Blk-21 | Viser |
| Burris et al | 6-Newton | Blk-151 | Curling |
| Bradstreet | 1-Woolridge | ..... | Kimbrew |
| Daniels et al | 1-Curry | Sec-40 | Wilson |
| Clark Buffalo | 8-Perry | Blk-624 | Kenney |
| Hodges et al | 1-Marr | ..... | Gillespie |
| Duffey et al | 1-Hill | Blk-63 | Mudgett |
| Charter | 8-Byler | Blk-43 | T&NO |
| United Royalties | 1-Fitzgerald | Blk-106 | Johnson |
| Gray | 1-Evans | Blk-38 | Hall |
| Forrest | 5-Moore | Blk-4 | Debord |
| Daniels et al | 2-Thomason | Blk-356 | Berry |

### Cherokee County

| | | | |
|---|---|---|---|
| Humble | 1-Weinberg Bros. | Blk-15 | Trimble |

### Callahan County

| | | | |
|---|---|---|---|
| Henderson-Petts | 1-McDermoth | Sec-45 | Comal Co. Sch. Lds. |
| Thompson-Lumas | 1-Seale | ..... | Bond |

### Comanche County

| | | | |
|---|---|---|---|
| Anderson-Harsch | 1-O'Rear | Sec-3 | T&NO |

### Coleman County

| | | | |
|---|---|---|---|
| Bradstreet et al | 1-Wheathey | Sec-11, Blk-80 | Manson |
| Starr-Kiser | 1-Neff | Blk-173 | Eubanks |

### Eastland County

| | | | |
|---|---|---|---|
| Dale | 11-Fox | Sec-58 | McLennon Co. Sch. Lds. |
| Lewis-Moore | 3-Whittington | Sec-27, Blk-2 | H&TC |

### Jack County

| | | | |
|---|---|---|---|
| Connell-Wixon | 9-Ellis et al. | ..... | Williams |

### Limestone County

| | | | |
|---|---|---|---|
| Killiam et al | 1-Ward | ..... | Whitaker |
| Mexia Dev. et al | 1-Bass et al. | ..... | Varella |

### Wichita County

| | | | |
|---|---|---|---|
| Hammond et al | 2-McCarty | ..... | Eaves |
| Hines et al | 3-Waggoner | Sec-2, Blk-2 | GC&SF |
| Hines et al | 1-Griffin | ..... | Jardan |
| Panhandle | 1-Waggoner | Blk-1 | GC&SF |

### Wilbarger County

| | | | |
|---|---|---|---|
| Lawson | 12-Waggoner | Sec-30, Blk-4 | H&TC |
| Lawson | 13-Waggoner | Sec-30, Blk-4 | H&TC |
| Salmon et al | 1-Davenport | Sec-112, Blk-14 | H&TC |
| Tower-McKanna | 2-Waggoner | Sec-32, Blk-4 | H&TC |
| Consolidated | 9-Waggoner | Sec-5, Blk-5 | H&TC |
| Consolidated | 11-Waggoner | Sec-5, Blk-5 | H&TC |
| Waggoner | 7-Waggoner | Sec-24, Blk-4 | H&TC |
| Waggoner | 8-Waggoner | Sec-24, Blk-4 | H&TC |
| Waggoner | 9-Waggoner | Sec-24, Blk-4 | H&TC |
| Waggoner | 10-Waggoner | Sec-24, Blk-4 | H&TC |
| Waggoner | 11-Waggoner | Sec-24, Blk-4 | H&TC |

### Young County

| | | | |
|---|---|---|---|
| Gwynn | 2-Kunkel | Sec-4 | BBB&C |
| Hines et al | 1-Kunkel | Sec-2447 | TE&L |
| Wise-Jackson | 1-Hamm | Sec-1924 | TE&L |
| Wolfe | 2-Whitehead | Sec-166 | TE&L |
| York State | 1-Harmanson | Sec-2 | GB&N |
| Hines et al | 1-Rogers | Sec-222 | TE&L |
| Hall et al | 2-Davis | Sec-1487 | TE&L |
| Kleiner et al | 16-Langston | Sec-1490 | TE&L |
| Kleiner et al | 15-Langston | Sec-1490 | TE&L |
| Russell et al | 1-Self | ..... | Rohus |
| Petroleum Prod | 4-Henning | Sec-410 | TE&L |
| Shappell | 1-Garrett | Sec-1487 | TE&L |
| Pennell et al | 1-Johnson | ..... | Sergeant |
| Paull | 2-Eddleman Bros. | Sec-2692 | TE&L |
| Paull | 1-Allen | ..... | Lynch |
| Panhandle | 1-Bullock | ..... | Hamilton |
| Panhandle | 1-Morrison | Sec-465 | TE&L |
| Maher-Baldwin | 1-Sedden | ..... | Farmes |
| Texas-Pacific | 6-Donnell | Sec-1211 | TE&L |
| Sun | 3-Davis | ..... | Davis |

## PANHANDLE AND WEST TEXAS

### Gray County

| | | | |
|---|---|---|---|
| LeFors Pet | 4-Shaw | C Lot-15, Blk-1 | Leach |
| McIlroy et al | 1-Bull | Sec-3, Blk-B-2 | H&GN |
| Plains Drlg | 1-Saunders | Sec-4, Blk-1 | ACH&B |
| Operators Oil | 8-Jackson | Sec-88, Blk-B-2 | H&GN |
| Dunigan et al | 1-Davis | Sec-8, Blk-1 | ACH&B |

### Hutchinson County

| | | | |
|---|---|---|---|
| Phillips | 1-Felix et al. | Sec-77, Blk-46 | H&TC |
| Phillips | 3-Chap et al. | Sec-78, Blk-46 | H&TC |
| Phillips | 7-Dorsett et al. | Sec-64, Blk-46 | H&TC |

### Wheeler County

| | | | |
|---|---|---|---|
| Magnolia | 1-Reeves | Sec-79, Blk-12 | HN&G |

# 60 New Locations in Rejuvenated Santa Fe Springs Field

By Wm. E. Green
N. P. N. STAFF WRITER

LOS ANGELES, Aug. 4

PROVING of deeper sand at Santa Fe Springs around 6000 feet. Decision to drill into the deeper zone at Inglewood on the part of the Petroleum Securities Co.

Completion of a well in the old Midway field that made more than 4000 barrels of 22 gravity oil.

Threat of a deeper sand at Huntington Beach and the action of the well that proved a new light oil field at Elwood west of Santa Barbara.

These furnished plenty of action in petroleum circles in California this week, where, heretofore, attention was centered on the activity at Long Beach.

Proving of the deep sand at Santa Fe Springs caused the making of at least 60 new locations this week up to Thursday night, with indications that at least this many more would be made within the next 30 days. It is the general opinion that the deep sand uncovered by the Wilshire well around 6000 feet underlies most of the proven field. Owners of the Wilshire well have kept under cover all details as to their new well.

In oil circles it is considered that the well is making better than 2500 barrels of 37 gravity oil, at slightly less than 6000 feet. One report is to the effect the well would make 5000 barrels if opened up. One company believed to have inside information, has made numerous locations in the vicinity, evidently feeling that the new well justifies the drilling of 15 to 20 wells at a cost of about $100,000 per well.

The demand for steel derricks at Santa Fe Springs was so strong that every concern selling derricks booked orders for all derricks on hand within four days after the completion of the new deep sand well.

There are five wells now drilling at Santa Fe Springs and it is possible that some of these wells can be completed within 60 days. Until that time it is doubted if the real truth of the discovery well will be known.

The major companies, including the Texas Co., Associated Oil, Standard Oil, Union Oil, General Petroleum, Richfield Oil., etc., control a major portion of the field, but there are a large number of townlot operators to contend with, and the activity of the independents is setting the pace.

There have been several informal discussions of the activity at Santa Fe Springs and the decision has been each time that it would be impossible to retard operations in any way. Royalties range from one-eighth to 35 per cent.

Petroleum Securities Co. has notified the interested companies at Inglewood that the company plans to develop the deep sand in that field. Associated and Standard Oil hold under lease large tracts in this field, although it is considered that Petroleum Securities lease is the best located in the field, but not so large in point of total acreage as the other two.

**A map of the central portion of the Santa Fe Springs field showing the deep zone producer of the Wilshire Oil Co. referred to in the accompanying article, is to be found on Page 26 of the Aug. 1st issue of National Petroleum News.**

Shell Co. more than a year ago drilled into the deeper zone, in reality a continuation of the present zone, and the well has been one of the consistent producers in the field. The Associated later drilled No. 2 into the deeper zone, stopping at 2990 feet. The well made 1100 barrels of light crude on a test and then was shut in after an agreement was reached not to penetrate the deeper zone until the oil was needed. The major companies of California are anxious that the deeper zone at Inglewood remain untouched, but apparently Petroleum Securities, owned outright by E. L. Doheny, wants the oil.

CHANSLOR - CANFIELD - MIDWAY OIL CO., owned by Santa Fe Ry., has completed a deep well in the old Midway field that made as high as 4800 barrels of 22 gravity oil, and thus turned attention to that old field, which has been almost dormant for several years.

This well, No. 4, located in Sec. 7-32-23, was drilled to 3003 feet and the last string of pipe was landed at 2128 feet. The well started out making 2000 barrels, climbed to 4800 barrels, and dropped back to about 3000 barrels, beaned down. Early this week it had a tubing pressure of 285 pounds with 650 pounds on the casing, and is making about 5,000,000 cubic feet of gas.

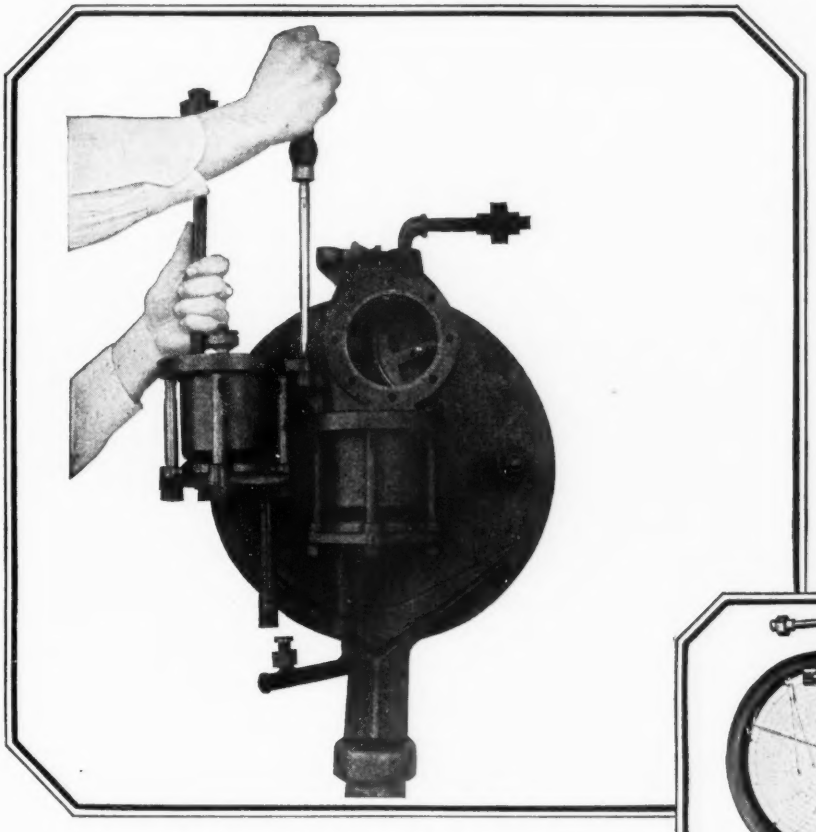
The accompanying map of a portion of the Midway field shows the large holdings of the C.C.M.O. and the relatively small holdings of other companies. The depths of the old wells in the Midway field range from 700 to 1000 feet and produced from 12 to 17 gravity oil. The oil from the new and lower zone has about 10 per cent gasoline content, but is generally looked upon as a fuel crude. Those working out the general conservation program in California have already approached C.C.M.O. officials and officials of other companies holding acreage with reference to their drilling campaigns and it is practically certain that no extensive drilling campaign will be undertaken by any company. Only three wells are now drilling for the deep zone in this area.

RIO GRANDE and Barnsdall have made location about 6000 feet due of the discovery well at Elwood, for a second test at the new field some 12 miles west of Santa Barbara on the ocean front. The discovery well is still making around 2400 barrels of clean oil with a very heavy gas pressure, which builds up on the casing as high as 1200 pounds, until it has to be eased off. The flow is coming through a 36/64-inch bean. No other locations have been made in that area as the two owners of the discovery well hold practically all of the structure that is thought to be good.

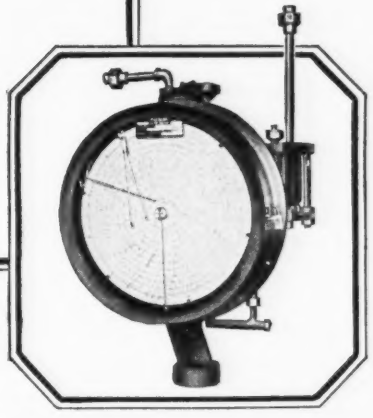
Associated Oil Co. completed the deepest oil well in the world last week, when its No. 100 Lloyd at Ventura Avenue was placed on production with bottom of hole at 7957 feet. It is flowing 1190 barrels of 28.6 gravity oil cut 5.9 per cent, in addition to about 350 barrels of free water.

Long Beach, with around 190 wells drilling for the deeper sand, this week reported but five new wells with an average initial of slightly better than 1200 barrels per well, and since this does not furnish suffi-

# LOW *maintenance cost*



EVERY part of the new Foxboro Orifice Meter is designed to meet actual working conditions in the field. The man in charge of these meters will appreciate the many revolutionary improvements that save time and money both in day-to-day operation as well as in cleaning and inspection.



The illustration shows the process of installing a 50″ low pressure mercury chamber in place of a 100″ chamber.

**The new Foxboro Orifice Meter is easy to clean, quick to assemble, low in maintenance cost. It is the most powerful float type orifice meter on the market. It has a uniform scale chart and uniform pen travel. Inherent error is eliminated. You require less frequent checking. You soon have confidence in the Foxboro Orifice Meter to perform reliably through greater periods of time. Made in three standard ranges—20, 50 and 100 inches of water.**

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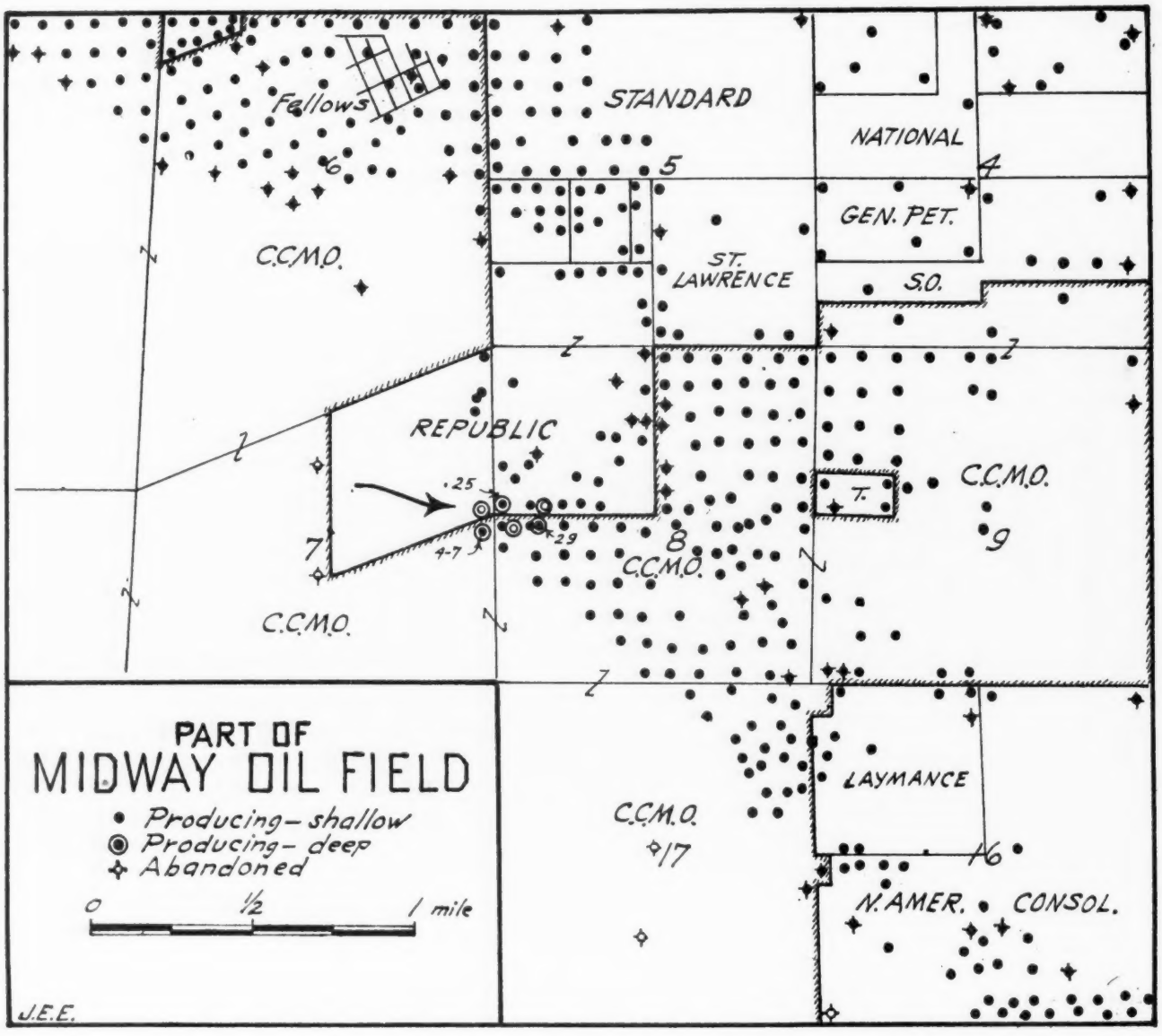
cient new production to take care of the natural decline, the field's production is off slightly.

Shell Co.'s Nicholson No. 5 at Long Beach reached a total depth of slightly better than 7800 feet and a test is expected next week. This is the deepest hole at Long Beach. It is understood that the bit stopped in the oil sand, and there is considerable interest in initial production of this test.




*This is a portion of the old Midway field where the deep sand production has been developed. It shows the large holdings of the Chanslor-Canfield-Midway Oil Co. (designated as C. C. M. O.), owned by Santa Fe Railway*

**Gas Oil Moves by Pipe Line**

TULSA, Aug. 6.—The refining division of the Empire Oil & Refining Co. is tendering gas oil to the pipe line division of the company for transportation from the Cushing plant to the Ponca City refinery where it will be charged to the cracking plant. The most recent tender was 20,000 barrels. The company has found it possible to move the gas oil through the line with very little contamination of either the gas oil or the crude usually shipped.

---

Joseph Reid Gas Engine Co., Oil City, Pa., has off the press bulletin No. 35 devoted to the Reid band wheel powers equipped with Timken tapered roller bearings. It has three new types combining the features of the Reid patented design with Timken bearings, which have been added to its line of oil field machinery.

Its type PX Power is the largest and heaviest of the three and has been designed to meet the demand for a power capable of handling heavy wells where the total power equipment may be as high as 100 horsepower, the company claims.

Type PF Power is a heavy duty power that will handle a load of 60 horsepower when wells are properly balanced and located. Type PC is smaller and for use on installations requiring up to a 40 horsepower engine.

Detailed specifications and a cross section of Type PF are included in the bulletin.

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THE second article by Staff Writer Paul Wagner describing pressure rejuvenation work of the Humble Oil & Refining Co. in Texas fields, which it was announced would be published in the Aug. 8th issue of NATIONAL PETROLEUM NEWS, has been delayed in publication and will be carried in its Aug. 15th issue.

---

Norris Bros., Inc., have recently opened a warehouse at Owensboro, Ky., to handle its line of pumping equipment. The company has warehouses at Fort Worth, Tex. and Robinson, Ill.

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WORLD'S OLDEST AND LARGEST MANUFACTURERS OF OIL FIELD EQUIPMENT

# *Our Industry—A Page of Facts and Personalities*

By Paul Wagner

National Petroleum News

**The nomination of Herbert Hoover** as Republican candidate for the presidency recalls first efforts made in that direction in 1920 by a group that included Mark L. Requa of San Francisco, war time oil administrator at Washington, and Capt. J. F. Lucey of Dallas, now head of the Lucey Oil Corp.

A larger group of oil and mining engineers watched Mr. Hoover's later candidacy and also gave aid to it where they could. Aside from recognizing his distinguished service at home and abroad they have found pride in his membership in the American Institute of Mining & Metallurgical Engineers.

* * *

**Dr. R. B. Stephenson, who served** the Rockefeller Foundation in China and was afterwards connected with the Marland Refining Co., Ponca City, as physicist, has resigned to take up research work with the University of Buffalo.

* * *

**Centralization of the Marland Production Co's.** geological and land work at Ponca City, Okla., headquarters caused the transfer of a number of individuals from Fort Worth to the Mid-Continent. Walter R. Berger of the geological department and Charles H. Pishny, valuation engineer, were among the number transferred from Fort Worth.

* * *

**R. D. Farish, president of the** Farlyn Oil Co., and captain of the 1927-1928 Houston polo club competitive team, has extended an invitation to Will Rogers, humorist, to play with the Houston line-up on any occasion. Rogers starred in a game at the time of the national Democratic convention at Houston, playing with a team that included R. D. Farish; S. P. Farish, president of Navarro Oil Co.; and "Billy" Farish, son of the president of Humble Oil & Refining Co. On the opposing team, W. P. Pyron, vice president of the Gulf Production Co., Houston, was the oil member of the line-up.

* * *

**Judge W. W. Hubbard of San Angelo** has resigned as secretary of the Black Arrow Oil Co., recently formed to operate in west Texas by Rupert P. Ricker and Floyd W. Dodson. Judge Hubbard will devote his time to his individual oil interests and the practice of law.

*C. A. Tucker of Tucker & Fox, Dallas*

**C. A. Tucker of Dallas, shown in** the accompanying snapshot, is a member of the oil partnership of Tucker & Fox, operating mainly in the west central Texas sand pay district north and northwest of Brownwood. He is a brother of John Tucker, producing department manager at Houston of the Gulf Production Co. Besides being a member of the Dallas "wildcat committee" of the Texas division, Mid-Continent Oil & Gas Association, C. A. Tucker is active in other affairs of the industry.

* * *

**Frank Gardner, production engineer** of the Simms Oil Co., Dallas, spent his vacation in the Corpus Christi district.

* * *

**F. B. Bimel, formerly in charge of** natural gasoline operations of the Standard Oil Co. of New Jersey, is now an official of the International Petroleum Co., with headquarters at Toronto, Canada.

**Gordon Farmed, formerly at Baytown,** has been transferred to the Ingleside topping plant of the Humble Oil & Refining Co., in the Corpus Christi district, as superintendent.

* * *

**I. B. Sutton, head of the General Machinery & Supply Co., at Tampico,** was recently elected president of Rotary International. It was the first time since the founding of the first Rotary Club in Chicago, 23 years ago, that the president of the general organization had come from any other country than the United States.

* * *

**F. M. Davies, assistant managing** director at Tampico of the Mexican Eagle Oil Co., Ltd. (El Aguila) is spending a three months vacation in England.

* * *

**J. M. Stone, production superintendent** of the Mazda Oil Co., is kept busy these days traveling between San Angelo, Texas and El Dorado, Ark. His company has production in the Pecos county, Texas, territory and the Champagnolle (Rainbow City) district of Arkansas.

* * *

**H. P. Luckey, of the Skelly Oil Co's.** land and scouting departments has been transferred to the Tulsa headquarters from San Angelo.

* * *

**Geologists of the Texas Bureau of** Economic Geology and the University of Texas are working with the United States Geological Survey in the cooperative preparation of a new geologic map of Texas, according to Dr. E. H. Sellards of Austin. The U.S.G.S. group working on the map includes Drs. N. H. Darton, T. W. Stanton and Miss Julia Gardner.

* * *

**Neil Needham has returned to Los** Angeles offices of the General Petroleum Corp. after a business trip to New York City, where he was in conference with officials of the parent Standard Oil Co. of New York.

* * *

**E. E. LeMasters, general superintendent** of the Oklahoma Pipeline Co., subsidiary of the Standard Oil Co. of New Jersey, with headquarters at Muskogee, Okla., spent his vacation at Colorado Springs.

* * *

**F. S. Smith, formerly identified** with Tampico district operations of Jones & Gilligan, is now in the sales department of the Mexican Eagle Oil Co., Ltd. (El Aguila), at Mexico City.

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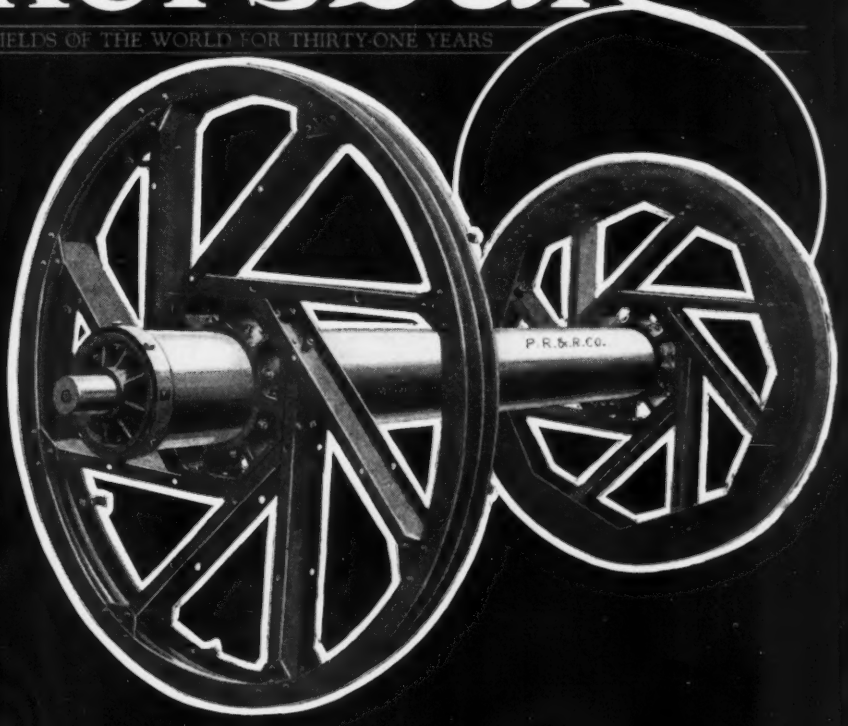


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|---|---|---|---|
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| Chain Driven Sand Reels & Bailing Reels | ■ | Portable Drilling Machines (Wood & All-Steel) | ■ |
| Steel Wheels | ■ | Bolted Steel Tanks | ■ |
| All-Steel Standard Rigs | ■ | Miscellaneous Drilling Equipment | ■ |

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# INDEX TO ARTICLES

## Selected Bibliography on Petroleum Technology

*Editor's Note—The brief abstracts of current literature printed below are so arranged that they may be cut apart and mounted on 3" x 5" library indexing cards. The indexing numbers assigned bring the cards into logical sequence in the files. The "Decimal Index of Petroleum Technology" gives the key to the articles. This book is published exclusively by NATIONAL PETROLEUM NEWS as a service to its readers. Price $1.00. Abstracts started April 4, 1928.*

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**J. C. Chatfield** **904.**

**"Re-Pressuring Oil Sands in Old Fields Causing Gasoline Plants to Close"**

National Petroleum News, Apr. 11, 1928, p. 51.

In the Nowata-Chelsea district the use of compressed air in repressuring old properties is causing such a reduction in the volume of wet gas available at gasoline plants that most of the plants in the field have been closed. Some of the old gasoline plants are being converted into compressor plants for air lift operations. Cross-index under 515 and 770.

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**Paul Wagner** **535.3**

**"Plugging Wells in Wortham Field Brings Extra $1,804,504"**

National Petroleum News, April 11, 1928, pp. 97-98.

This is a summary of results secured by plugging methods in the Wortham field of Texas in a study made by the Dallas office of the U. S. Bureau of Mines. Some data is given on plugging methods. Volume of oil estimated saved through plugging to shut off water is given, and results on two leases given in detail. General conclusions on drilling in water drive fields are given.

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**National Petroleum News** **071.11**

**"Gulf Wins Decision over Texas Co. in Aluminum Chloride Fight"**

National Petroleum News, May 30, 1928, p. 47.

Fifteen years of litigation may be ended by decision of U. S. Circuit Court of Appeals at New Orleans in favor of the Gulf Refining Co. in battle between Gulf and A. M. McAfee on one side and George W. Gray and The Texas Co on the other over aluminum chloride patents. Decision is final unless The Texas Co. carries the case to the U. S. Supreme Court.

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**Lawrence E. Smith** **422.35**

**"Electric Power Generated at Well Site Used in New Mexico Test"**

National Petroleum News, May 2, 1928, p. 101-104.

Describes the development of power by the Marland Oil Co. for drilling a wildcat test in southeast New Mexico by the use of a gasoline engine of the marine type at the well site, the engine running a generator and transmitting the current generated to drilling motors. The gasoline engine was used because it could be bought at a low price by the drilling contractor. It is believed diesel type engines, if they could be made of the portable or semi-portable type, would best serve this purpose. Equipment is described in detail and the progress in driling recorded. Illustrated.

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**J. C. Chatfield** **904.**

**"National Gasoline Industry Advances"**

National Petroleum News, May 23, 1928, p. 85.

Review of progress of the industry in the 12 months ended May, 1928, in developing new markets for natural gasoline for use in airplanes, in high natural gasoline content blends for use in motor cars and for export movement. Research work of the Natural Gasoline Association is described in brief as well as other research working for by-product development. Production and shipment statistics of natural gasoline are given with charts showing their relationship.

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**Brewer, Charles, Jr.** **333.**

**"Genetic Relationship of Oil Reservoirs to Shoreline Deposits"**

Bulletin of American Association of Petroleum Geologists, Vol. 12, No. 6, June 1928, pp. 597-615.

Bars, hooks and spits in seas of the geologic past are described as shoreline features from which local and lenticular sands of many oil fields undoubtedly have originated. Subsidence and sedimentation are also dealt with in the paper.

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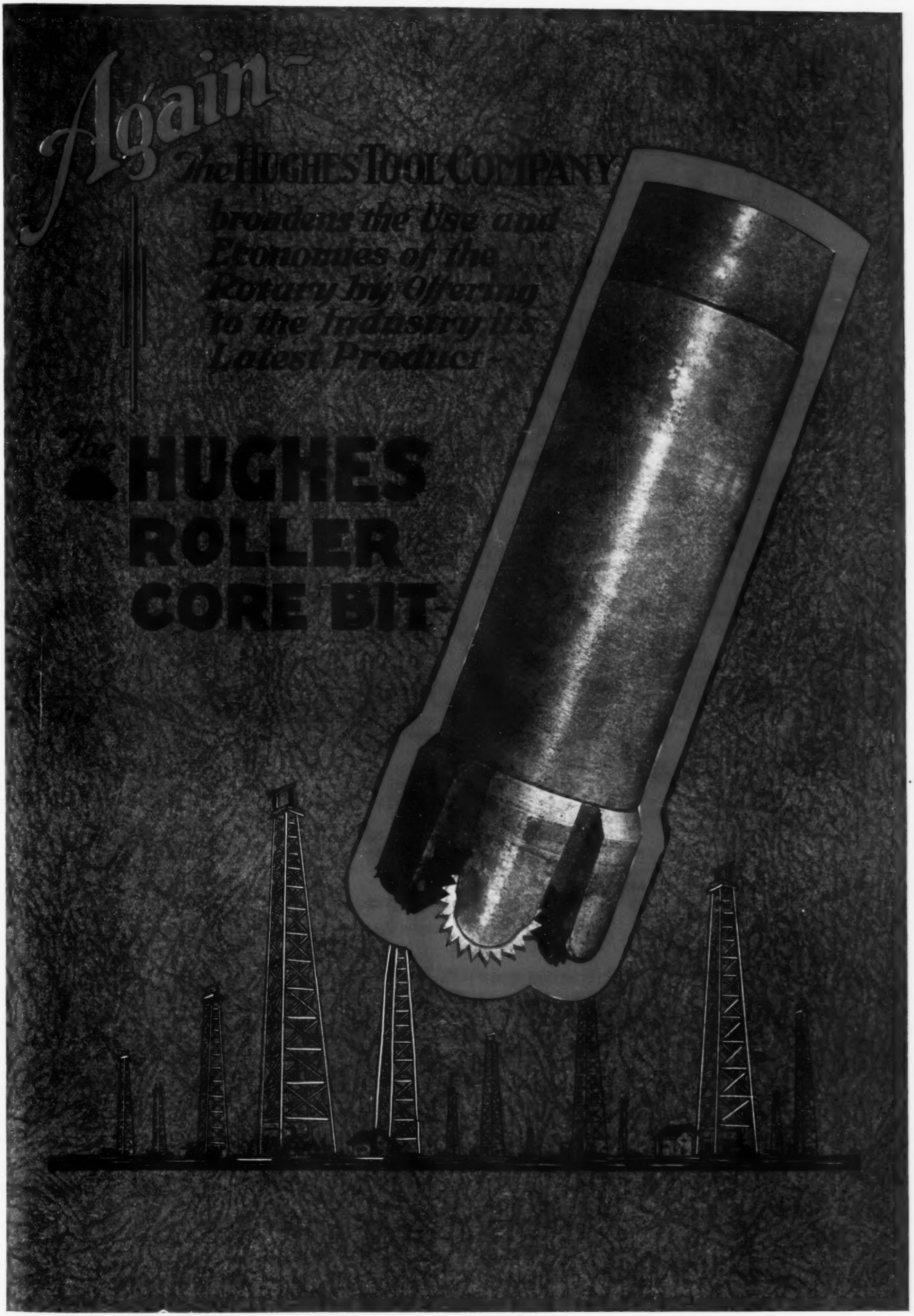
**Bybee, H. P., Bullard, Fred M. and Hawtof, E. M.** **305-111.42**

**"Geology of Cooke county, Texas and Petroleum Developments"**

University of Texas Bulletin No. 2710, January, 1928.

This report includes a geologic map of Cooke county, one of the extreme north central counties of the state. Three small oil pools have been developed in the Strawn series of the Pennsylvanian. The report contains a brief account of this development; description of the structural features of the county; logs of wells; plates showing fossil remains and a geologic map of the county.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# Narrow Distillation Range Oils Are Best For Gas Absorption

By L. D. McLouth*

*Read before California Natural Gasoline Association meeting July 12, 1928*

*This paper gives results of experiments and tests indicating that the best absorption oil for use in natural gasoline plants should have a comparatively narrow distillation range, not to exceed 100 degrees F. It was also found that absorption oils are more effective as their gravities increase from 32 to 50 A.P.I. Oils with a predominant paraffin base are more desirable than those with a predominant naphthalene base, provided the viscosity of both oils are the same.*

IN ORDER to meet the more rigid specifications imposed by refiners upon the natural gasoline manufacturer, the producer of natural gasoline has attempted to perfect his plant operation to secure more precise control; the manufacturer of stills, absorbers and fractionating equipment has done his part by increasing the efficiency of his equipment; the investigator has at the same time attempted to apply the results of his work to effect smoother operation and greater economy.

The net result of all these forces working together has been a gradual improvement in the efficiency of plant systems, and a decided increase in information available on methods of absorption and fractionation. Very little work, however, has been done on the absorption medium itself, and information in this field appears to be very meager and indefinite. It is the purpose of the writer through the medium of this paper to offer the results of a series of experiments performed with various oils which were tested for their gasoline absorption capacities as well as for their physical characteristics which have an effect upon their ability to absorb gasoline hydrocarbons.

During the early days of the industry in California, many widely varying types of oils were used as absorbents. The present day practice favors the use of an oil of 36 or 37 Be. gravity, while the writer was unable to discover any oil in use having a gravity of less than 30 Be. This complete reversal of former practice hardly appears to be justified unless there is experimental evidence proving conclusively that the higher gravity materials are superior to the lower gravity oils. Such evidence, if it has been obtained, has not been published.

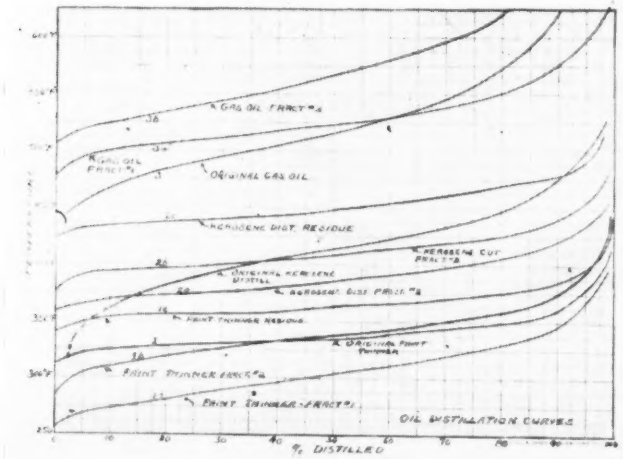
In California, the present practice appears to favor the use of an oil similar to the one listed below. There are many companies, however, using absorption oil having a distillation range 50 degrees higher than the one shown, while only one oil obtained from an outside source had an initial boiling point below 350 degrees F. Most of the oils tested were low in unsaturates.

The writer has tabulated the characteristics of an oil which represents an approximate average of oils in use at the present time by California companies. The characteristics of this oil are here shown before and after it has been circulated through a plant for a period of 16 days.

| New Oil Engler Distillation | |
|---|---|
| I.B.P. | 360° F. |
| Per-Cent | |
| 5 | 385 |
| 10 | 393 |
| 20 | 408 |
| 30 | 416 |
| 40 | 425 |
| 50 | 434 |
| 60 | 444 |
| 70 | 454 |
| 80 | 468 |
| 90 | 494 |
| 98.3 | 589 |
| Residue | 1.4 c.c. |
| Gravity | 37.8° A.P.I. |
| Emul. with water | 0.0% |
| Emul. with NaOH | 0.0% |
| Shrink. with $H_2SO_4$ | 2.0% |

| Circulated Oil Engler Distillation | |
|---|---|
| I.B.P. | 304° F. |
| Per Cent | |
| 5 | 404 |
| 10 | 414 |
| 20 | 428 |
| 30 | 435 |
| 40 | 443 |
| 50 | 452 |
| 60 | 460 |
| 70 | 474 |
| 80 | 490 |
| 90 | 530 |
| 98 | 618 |

*Gas Department, Pan American Petroleum Co.



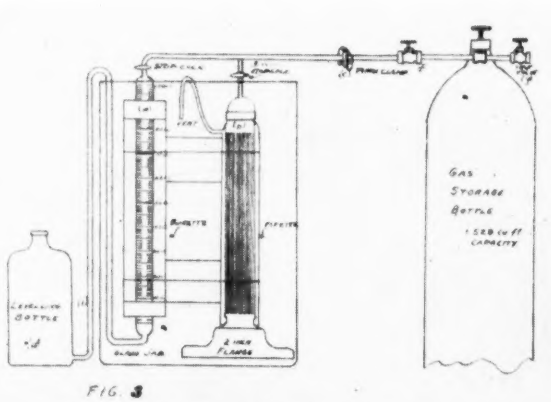




FIG. 3
APPARATUS USED FOR GAS ABSORPTION EXPERIMENTS

*Fig. 1, left, oil distillation curves; Fig. 2, right apparatus for gas absorption experiments*

Even bankers are beginning to differentiate, in giving consideration to the credit requirements of refiners, between those whose plants are equipped with the Dubbs Cracking Process and those which are not so equipped

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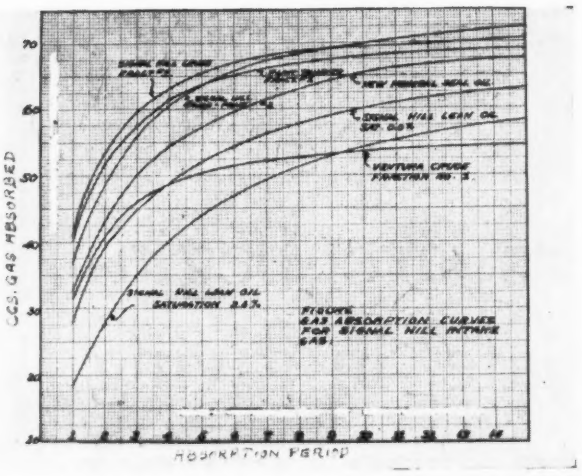


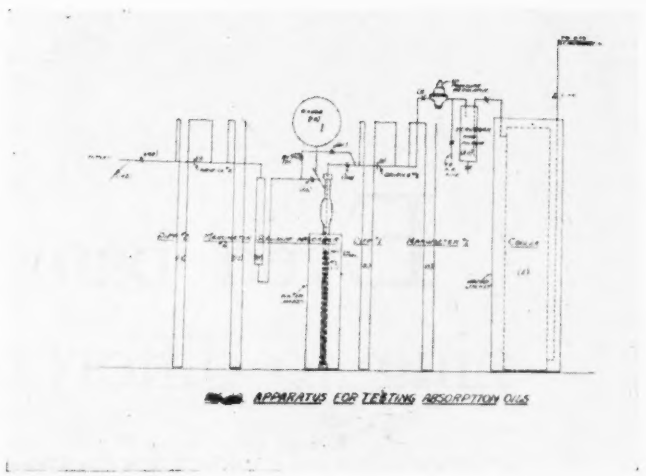




*Fig. 3, left, gas absorption curves for Signal Hill intakes gas; Fig. 4, right, apparatus used for testing absorption oils*

| | | |
|---|---|---|
| Residue | 1.8 | c.c. |
| Gravity | 36.9° | A.P.I. |
| Emul. with water | 6.0% | |
| Emul. with NaOH | 2.0% | |
| Shrink. w/$H_2SO_4$ | 5.0% | |

Evidence of deterioration of the oil during the 16 days in the system are indicated by the widening of the distillation range, and by the emulsion and shrinkage tests. This deterioration may be attributed to several causes, the principal ones probably being:

(1) Contamination of absorption oil by crude or other foreign substances in the gas, not removed by the intake gas scrubber.

(2) Gradual breaking down of oil which is continually being heated. This action may be accelerated due to the presence of even small percentages of crude, particularly when unsaturated compounds are present. Polymerization will occur, thus tending to increase the heavy, inert material present in the oil.

The degree to which oils will break down by a splitting up or an addition to the original oil molecules, will depend to a considerable extent on the temperature at which the oil is heated, the type of heating, whether fire or steam, the quantity of contaminating material present, and the types of oil molecules present in the oil. The writer believes that the breaking down of oils is caused largely by the components having the highest molecular weights.

The experiments which were conducted on absorption oils—the results of which are briefly summarized in this paper—were made in an attempt to clarify any existing misunderstandings upon the following points:

Comparison of absorption of gaseous hydrocarbons by oils having a long distillation range with absorption by oils having a short distillation range.

Effect of changes of gravity of oil absorbent upon the gas volume absorbed by the oil.

Effect of viscosity of oil upon absorption.

Comparison of oils taken from different sources with respect to their relative merits as gas absorbents.

Effect of changes of temperature of oil and gas upon absorption.

Effect of changes of pressure upon absorption.

Effect of the quantity of naphthenic or paraffinic base of the oil upon its quality as an absorbent.

After these points were determined, a comparative study was made to determine the type of oils being used by other companies.

### Preparation of Samples

The narrow boiling fractions required for the working out of the original problem were prepared by vacuum distillation and were obtained from three different materials, i.e., a paint thinner, a kerosene distillate and a gas oil. (See Figure 1). Separation of fractions and re-distillation of these fractions was necessary in order to secure fractions having distillation ranges within 100 degrees F. The total range included by the oils started at about 250 degrees F. and ended at slightly over 700 degrees F.

### Apparatus Used for Atmospheric Absorption

The apparatus used for the gas absorption tests at atmospheric pressure consisted of the graduated burette, and the absorption pipette, and the levelling bottle commonly used in a Williams gas testing set-up. (See Figure 2). An oxygen bottle was used to store the gas sample which was tested, the gas bottle being connected in parallel to the top of the burette and pipette. Constant temperature was maintained on the gas and oil samples by submerging the burette and pipette in a cylindrical glass jar, filled with water, which was held at 70 degrees F. during tests by agitation with air.

### Test Procedure

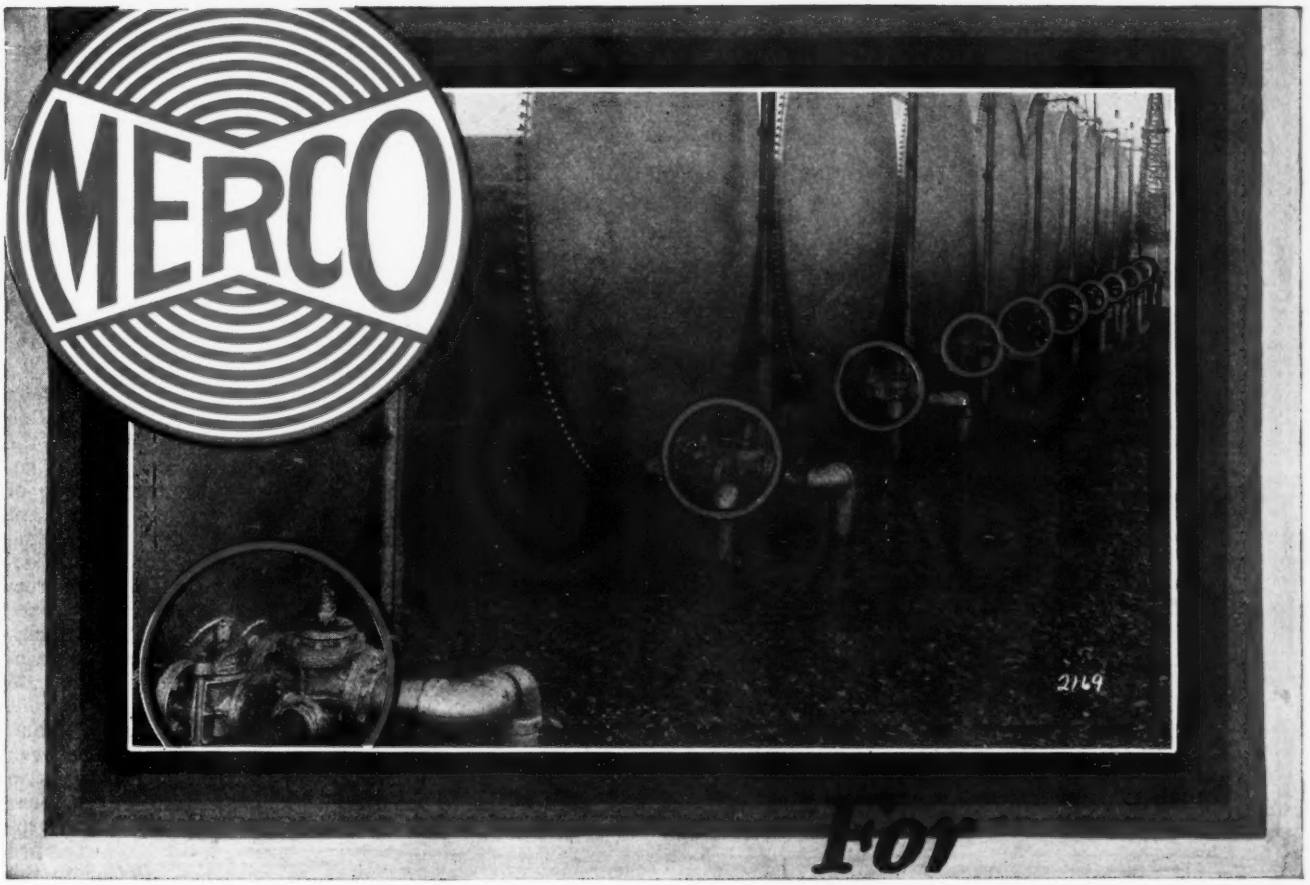
The method of running a test was as follows:

The absorption pipette was partially filled with 180 cubic centimeters of oil (oil sample measured at temperature of test) and the oil sample was drawn up into the capillary tube by lowering the levelling bottle. The valve on the line from the storage bottle was then opened slightly and gas was passed through the burette and levelling bottle in order to thoroughly purge the burette of air and to saturate the water with gas. The burette was then filled with 100 cubic centimeters of the gas, the three-way stop-cock on the pipette was turned in such a manner that gas was allowed to bubble through the oil and the levelling bottle raised, thus forcing the gas through the oil. This process was timed in such manner that the entire gas volume was passed through the oil in one minute. The gas was then withdrawn into the burette by lowering the levelling bottle and the gas contraction was noted. This process was repeated twenty-five times.

### Results of Tests at Atmospheric Pressure

Tests were run on three different types of gases, i.e., samples from Ventura Avenue, Signal Hill and Inglewood. Inasmuch as the tendency of the oils to absorb varying quantities of gas appears to be in the same relative sequence regardless of the field from which it is obtained, the writer placed emphasis upon the tests of gas from the Signal Hill field. Many oil samples which the writer classed as miscellaneous were tested. (See Figure 3.) However, the brevity of this report makes it impossible to discuss all of these in detail. Therefore, the discussion of results will be limited to a few representative examples, special emphasis being placed upon those oils which displayed decided superiority in a majority of tests.

In order to determine whether oil from one source displays better absorption qualities than oil from another source, crude oils from Signal Hill and Ventura Avenue fields were distilled and re-distilled, using vacuum and steam distillation until oils having comparatively the same distillation range were obtained from




*View shows a series of gasoline tanks in a Mid-Continent refinery equipped with Nordstrom Valves.*

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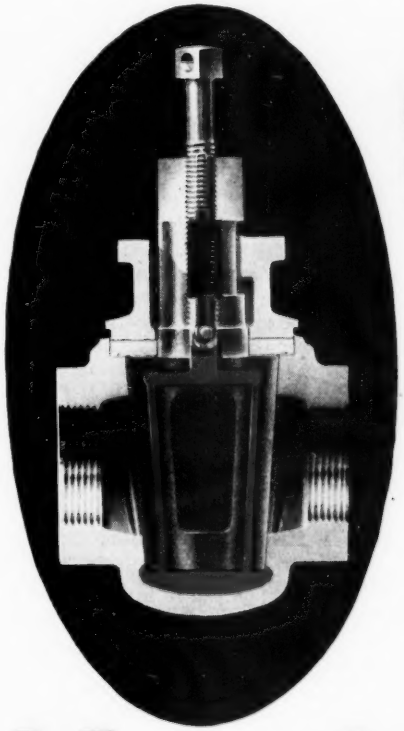

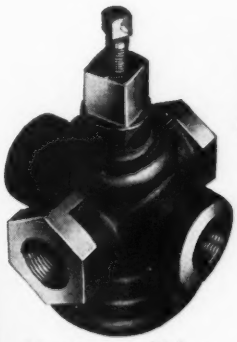

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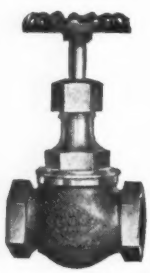

*Fig. 106*
*Screwed, Jenkins Standard Bronze Globe Valve*

*Fig. 325*
*Screwed, Jenkins Standard Iron Body Gate Valve*

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each oil. By referring to the curves, (see Figure 4) it will be seen that the Signal Hill fractions are superior to all other oils over a large portion of the curve, although the paint thinner fraction No. 1 is slightly superior to the Signal Hill fraction No. 2 during the first part of the test. The Ventura fractions are decidedly inferior to the others shown.

The new mineral seal oil which is of the type commonly used, appears to be a fairly satisfactory absorption oil, although it is inferior to the Signal Hill fractions as well as the paint thinner No. 1 fraction.

In order to determine the effect that separation of the high boiling gasoline fractions remaining in the lean oil would have upon the absorption efficiency of the oil, a sample of lean oil from a Signal Hill plant (saturation 2.60 per cent by Hempel chain flask distillation cut at 350 degrees F.) was tested as it came from the system; another sample of the same lean oil was reduced to a zero per cent saturation (removal of gasoline fractions distilling over up to a temperature of 350 degrees F., Hempel chain flask distillation) and also tested. The difference between the absorption efficiency of the two samples is very marked, an increase of 50 per cent in the initial absorption being noted with the stripped oil. Both samples are inferior to the new mineral seal oil which is the same oil previous to circulation through the plant system.

The above tests and the others which were run with the kerosenes and the gas oils all tended to indicate that the superiority of the oils as absorbents was a function of the gravity, viscosity and distillation range of the oils, a general increase in absorption being noted with increases in gravity of the samples, with narrowing of the distillation range and with decrease in the absolute viscosity of the oil.

In order to verify the indication that Signal Hill Oil fractions were superior to Ventura fractions, a sample of Ventura intake gas was obtained and several tests made to determine absorption with this gas. These tests again demonstrate the superiority of Signal Hill oil fractions as compared with the Ventura fractions, particularly with regard to the first fractions. The paint thinner No. 1 fraction again appears to be nearly as good an absorbent as the Signal Hill first fraction.

Many tests were run using other gases varying in gasoline content, (tests made by $CO_2$ ether method) from a discharge gas of .20 gallons per 1000 cubic feet content to an intake gas with a gasoline content of 1.32 gasolines per 1000 cubic feet content; in all these tests the same relationship was shown. In other words, the capacity of these oils to absorb the gaseous hydrocarbons is in the

same sequence regardless of the gasoline content of the gas.

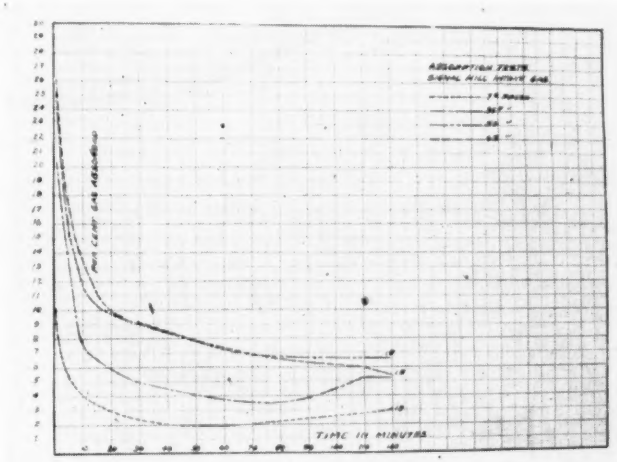
Several tests were run to determine the effect of changes in temperature of the gas and oil upon the quantity of gas absorbed. These tests indicated that the initial absorption was increased only ten per cent by absorbing at 40 degrees F. while the initial absorption value was decreased approximately 60 per cent when test was run at 100 degrees F.

At this stage of the work it was decided that the problem would be more significant if it were carried out at various pressures above atmospheric, and with an oil to gas contact ratio more closely approximating actual plant conditions. Therefore, after considerable preliminary investigation, an apparatus was built which gave very satisfactory results.

### Apparatus Used for Testing Oils Under Pressure

The apparatus used for the absorption of gas under pressure, (see Figure 8) consisted of an absorber tube (7) ¾-inch in diameter by 30 inches in length, having ⅛-inch gas inlet on the top of the tube, and an outlet on the side and near the top. The gas inlet extends into the absorber tube to approximately 1 inch from the bottom, so that the gas emitted into the absorber must pass upwards through the oil, thus insuring good contact. The gas is admitted into the system from the plant high pressure gas scrubber; the gas first passes in the cooler (1) which is jacketed with water maintained at 70 degrees F. From the cooler the gas goes through the scrubber (1-a) which contains glass wool to serve as a filter. The pressure reducing regulator (2) is adjusted to the pressure desired for the test, and the gas at this pressure is then passed through orifice No. 1 (4) and is measured by static manometer No. 5 (5) and differential manometer No. 1 (6). The gas then passes into absorber tube through 180 cubic centimeters of oil, the temperature of the oil being maintained at 70 degrees F. by water jacketing the tube. The gas, after passing through the oil, is then passed through scrubber (9) and then through No. 2 (11) and is measured by means of static manometer No. 2 (12) and differential manometer No. 2 (13). The specific gravity of the discharge gas is taken at the gas outlets, (14-b).

The specific gravity of the intake and discharge gases were obtained by means of a Schilling effusion bottle and the Binckley continuous-gravity apparatus. Either method gave a reasonable degree of accuracy; the Binckley apparatus had decided advantages over the Schilling bottle for this type of test, inasmuch as a continuous gravity may be obtained simultaneously with the test. The Edwards balance could not be used satisfactorily in this test, due to the difficulty of obtaining reliable samples quickly.



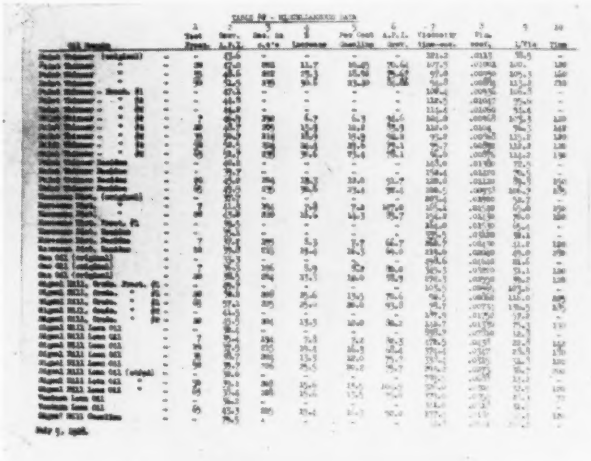



*Fig. 5, left, absorption tests, Signal Hill intake gas; Fig. 6, right, miscellaneous data*

### Testing Procedure

Prior to the running of a test under pressure, the gas to be tested was allowed to purge the apparatus for at least ten minutes; during this time the pressure desired for the test was fixed by adjustment of the pressure reducing regulator. The time of effusion of air and intake gas was then obtained with a Schilling effusion bottle, or a Binckley continuous gravity apparatus. The rate of flow of gas through the apparatus was maintained at six feet per hour during all tests.

In order to obtain consistent results, it was necessary to maintain a constant gas and oil temperature. Inasmuch as all atmospheric tests were made at a temperature of 70 degrees F. the pressure tests were also made at within plus or minus 0.2 degrees F. of 70 degrees F. These temperatures were held by jacketing the gas cooler and absorber tube with water agitated by air.

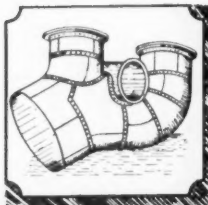
As soon as the gas flow, gas pressure, and gas and oil temperatures were constant, and as soon as the gravity of the intake gas had been obtained, the absorber tube was introduced into the gas flow and the stop watch started. Readings of the manometers were taken at one minute intervals during the first 30 minutes of the tests; the readings after the first 30 minutes being taken at 5-minute intervals. Gravities of the intake gas too, and the discharge gas from the absorber, were taken as often as possible, special attention being given the discharge gravities inasmuch as these change rapidly during the first portion of the test, while the intake gas gravity remains fairly constant. Gravity tests were made, using the Schilling effusion bottle and the Binckley continuous-gravity apparatus.

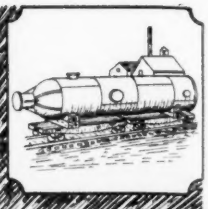
During this extension of the problem to include various pressures, the writer decided to test all of the oils which displayed an effective absorption at atmospheric pressure, and in addition a few of the less effective oils to serve as a contrast. Considerable emphasis was placed upon the Signal Hill lean oil tests. Tests were carried out at gauge pressures of 7, 20, 35, 50 and 65 pounds.

### Interpretation of Results

The method of plotting the results of the pressure tests may prove bewildering to the reader unless some explanation is now made. By reference to these curves it will be noted that the ordinate denotes per cent of gas absorbed, while the abscissa designates the time in minutes. The per cent of gas herein referred to is not an actual quantity, but a relative value obtained by calculating the per cent of gas volume contraction for the minute previous to the observed reading; this calculation being based upon the assumption that the reading taken at any moment represents the average value for the previous minute.

The fallacy of this method becomes obvious when it is used as an accurate means of determining the actual gas volume contraction, inasmuch as the per cent of gas absorbed is actually changing very rapidly throughout the first period of the test; how-





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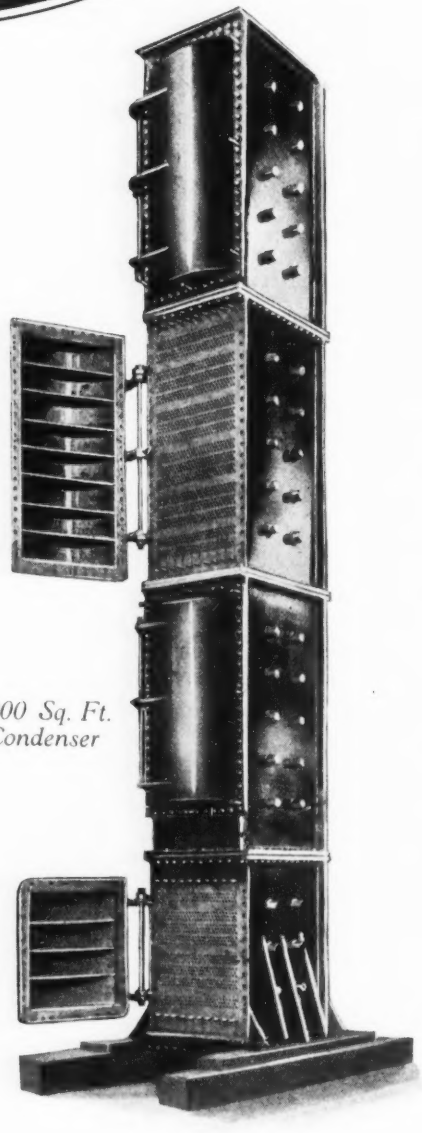

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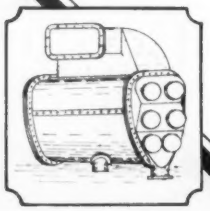

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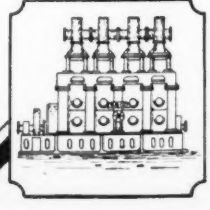

ever, this method does offer a desirable graphical means of comparing the oils tested in terms of their relative capacities.

The same criticism may be made in the case of the curves depicting the change in the gravity of the discharge gas during the test: i.e., the dependability of the curve will, of course, be limited by the number of gravities obtained during the test, the accuracy of the gas volume metered also being dependent upon the reliability of the gravity value. Due to the large number of gravity tests taken during each test, however, the writer believes that the results are accurate to a reasonable degree.

When the Binckley gravity apparatus was used, it was possible to obtain a much larger number of gravities than by use of the Schilling apparatus, due to the fact that the Binckley apparatus allows practically a continuous record to be made. The two types of apparatus checked closely.

The curves represented in connection with the pressure tests were selected from a large number of tests as being those particularly adapted to an explanation of certain peculiarities of different types of oils.

The same general sequence occurred in tests under pressure above atmospheric, with reference to their absorption capacities as was given in the summary of the results of the atmospheric tests: i.e., the higher gravity oils having the narrow distillation ranges and lower viscosities perform better than the oils having the opposite characteristics. However, there was an apparent discrepancy in some of the tests at lower pressures, as the more viscous oils are here shown to be somewhat better absorbents than the less viscous ones. Referring to viscosity data (Figure 6) it will be seen that the Signal Hill lean oil had the highest viscosity of all oils here tested, but nevertheless displayed the highest absorption at 7 pounds pressure over the entire test. This same oil was inferior to all others at the other pressures at which it was tested.

As in the case of the atmospheric tests, the Signal Hill fractions are the best absorbents at pressures above 7 pounds. The paint thinner fractions come next in order. Due to the fact that the paint thinner fractions No. 1 and No. 2 are almost equally effective as absorbents, the No. 2 fraction has been selected due to the slightly higher distillation range which would tend to make this oil more practical for plant use than the first fraction. The paint thinner residue was also a very effective absorbent. (See Figure 5).

The curves of the Signal Hill fractions 1 and 2 are at first glance rather bewildering. The 20-pound tests show that the first fraction, which is higher in gravity than the second fraction, absorbs better at

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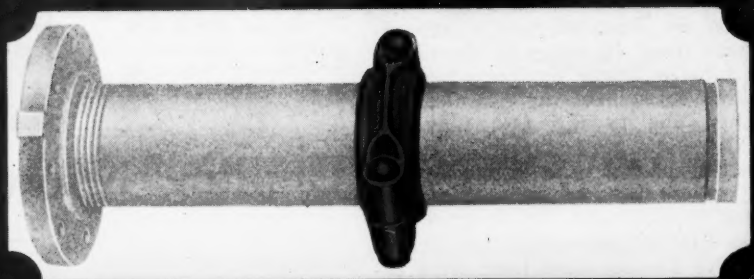

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the start, but absorbs practically to the same degree as the second fraction throughout a large proportion of the test. The first fraction is much superior at 65 pounds to the 20-pound tests. Incidentally, the 65-pound test was the best one of all oils tested from the standpoint of its initial absorption.

Curves showing the absorption of paint thinner residue fraction follow the same trend as those of the original paint thinner, but display a peculiar fluctuation during the first portion of the tests.

The tests of the original gas oil at 7 pounds and 20 pounds verify the statement that a high viscosity is rather desirable at low pressures, when the gas to oil ratio is high. The gas oil was one of the most viscous oils tested and proved to be one of the best absorbents at low pressure.

The writer anticipated that the tests would prove that, in accordance with Henry's law, the gas would go into solution in the oil in greater quantities with increased gas pressure. This is shown to be true; although this solubility evidently does not occur in direct proportion to the absolute gas pressure. The curves of the original paint thinner show that a change of 15 pounds pressure may in one case not change the absorption to a very marked degree, while in another case the increase in absorption is very pronounced.

The absorption curves of the Signal Hill lean oil present several interesting features. In the first place, during the initial 30 minutes of the test, the per cent of gas absorbed increases with the increase in the pressure of the test. Then, during the latter portion of the test, the percentage of gas absorbed appears to increase as the time of the test increases. The only exception to this phenomena is in the case of the 35-pound test which increases for a short time and then decreases rapidly.

There are two plausible explanations for the occurrence of the non-conformities mentioned above. First, it is possible that in this particular case the oil, after picking up the lighter fractions, actually becomes a better absorbent. Second, it seems reasonable to presume that the oil reaches a so-called "saturation point" which is different for each individual oil.

Apparently, then, this point would be determined by the vapor pressure of the oil, partial pressure of the gas, and by the pressure under which the absorption is made. The writer believes that the action of the oil in absorbing or mechanically retaining the gas must be practically non-selective just as long as the partial pressure of the gas is higher than the vapor pressure of the oil.

When, however, the "saturation" point is reached, at which point the partial pressure of the gas and the vapor pressure of the oil are in equilibrium, it becomes necessary for the vapor pressure of the oil to in some manner become reduced, or the absorbing action will cease.

In order to so reduce the vapor pressure of the oil it becomes necessary for the oil to absorb less volatile components from the gas; in other words, the action must at this point change to a semi-selective process whereby less volatile components having lower vapor pressures are absorbed by the oil, while more volatile components are displaced. This action undoubtedly is not a sudden change, but rather a gradual process which occurs after the maximum absorption point has been passed. In other words, let us assume that the test at the start will proceed in such a manner that the gasoline absorbed per pound consists of equal quantities of butane, pentane, and hexane; the volume occupied by one pound of the vapor of this mixture maintained under standard conditions of temperature and pressure would then be about 48 cubic feet. (Assuming obedience to perfect gas laws).

If, however, the absorbing action changes to such an extent that the absorption becomes semi-selective, we

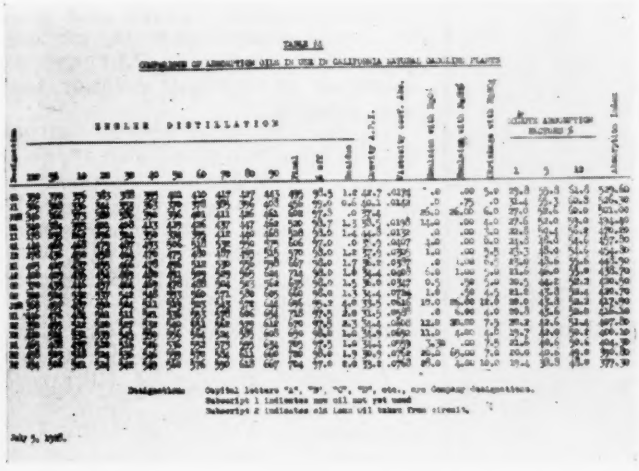
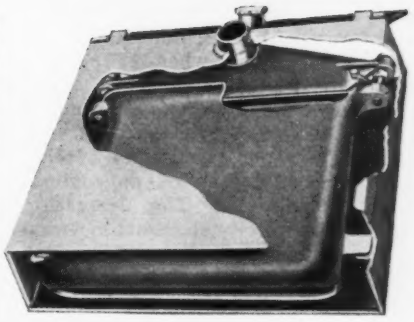


*Fig. 7, comparison of absorption oils used in California natural gasoline plants*

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might reasonably assume that a point would be reached when the gasoline absorbed would consist of equal weights of pentane and hexane, the butane being left in the gas. The volume of vapor per pound of liquid absorbed would then be approximately 39 cubic feet. The decrease in the volume of gas absorbed would, of course, decrease the difference between the orifice readings on the upstream and down-stream sides of the absorption tube, and thus decrease the percentage of gas absorbed, although the quantity of gasoline absorbed by weight could still be the same.

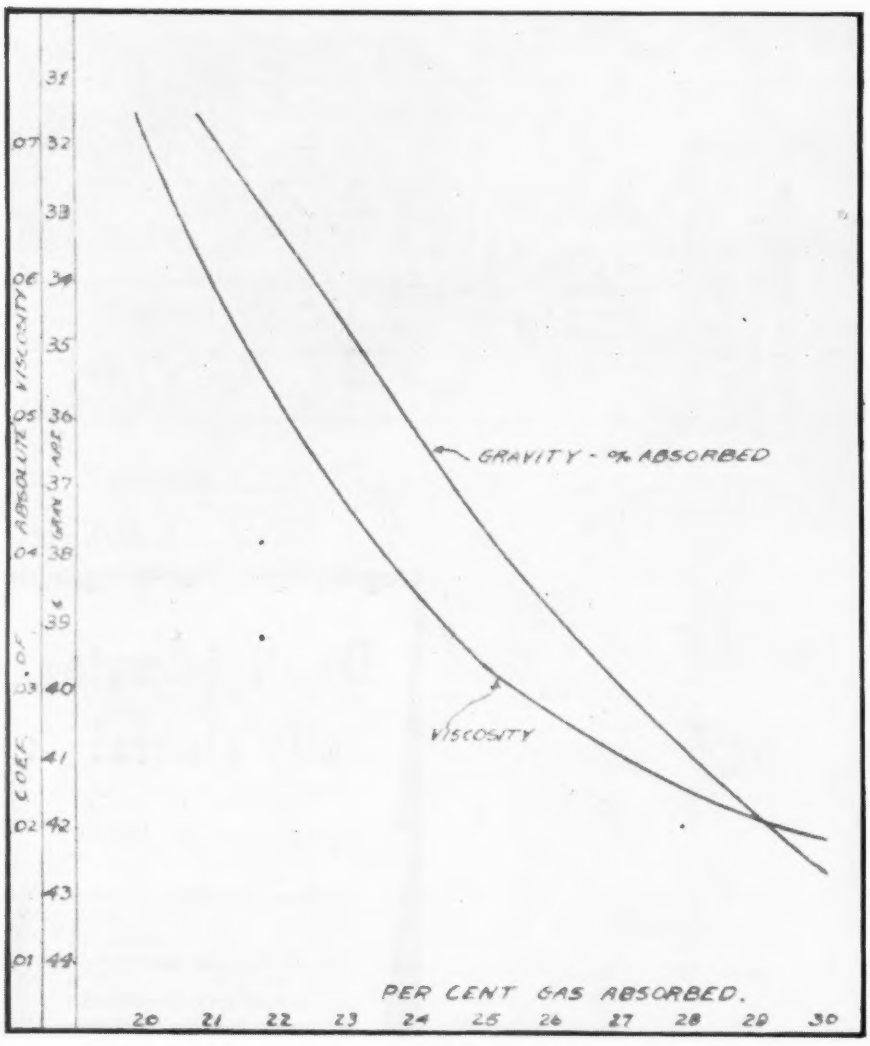


*Fig. 8, composite curves showing approximate relationships of viscosity and gravity data to the volume (per cent) of gas absorbed, Califor..ia absorption oils tested at atmospheric pressure*

At the same time, however, the writer believes that the actual quantity of gasoline components absorbed would decrease, because capacity of the oil to absorb apparently decreases as the absorption test continues. The gravities of the discharge gas toward the end of the test became so high that it was evident that the absorption had greatly decreased.

Several tests when portrayed by the curve, indicated a large increase in gas absorbed for a short time, thus causing a decided irregularity in the curve. The discharge gravity generally showed a fluctuation at the same time. Many of the absorption curves of the same oils at different pressures show the irregularity at practically the same relative position on the curve. This action leads the writer to believe that the oil at this point reaches the critical stage where the vapor pressure of the oil and the partial pressure of the gas are in equilibrium. The apparent large increase might then be attributed to a momentarily high absorptive tendency occurring immediately after the saturation point had been reached and the vapor pressure of the oil had been reduced sufficiently to allow selective absorption to proceed.

The writer conducted gasoline content tests throughout one pressure test in order to verify the indications that absorption decreased as the tests progressed. A condenser tube was placed in a freezing mixture of carbon dioxide and ether and gas was metered through this tube at a rate of one cubic foot per hour. As soon as the test was stopped and the quantity of condensate noted, the condenser tube was placed in a bath of ice and alcohol maintained at 0 degrees C. The condensate was allowed to weather in this bath for 15 minutes.

The gasoline content tests support the theory that the absorptive capacity of the oil decreases with increased gas to oil contact ratio and also support the belief that the absorptive action changes from a non-selective to a selective one. (Pressure test carried out at 22 pounds).

*Correlated Data:* Correlated data pertaining to the tests has been compiled and is shown in Figure 6 of this paper. Emulsion tests with distilled water and with sodium hydroxide (7.0 Be.) and tests for shrinkage with concentrated sulfuric acid (com. 66 degree) were made on all samples. The gravity (A.P.I.) and the coefficient of absolute viscosity were also obtained.

On the data sheet entitled "Miscellaneous Data" will be found miscellaneous information, portions of which have been obtained directly from the tests, while other portions have been calculated from data which was known. The data here shown is arranged as follows:—

Column 1. Pressure of test. Blank space denotes oil before testing.
Column 2. Gravity of oil sample. (A.P.I.)
Column 3. Volume of original oil sample plus absorbed gasoline (c.c)
Column 4. Per cent increase (absorbed gasoline /100 cubic centimeters) x 100
Column 5. Per cent gasoline—gasoline absorbed x 100 /*Final volume.*
Column 6. Approximate gravity of absorbed gasoline (A.P.I.)
Column 7. Time of efflux of oil through viscosimeter. (Seconds.)
Column 8. Coef. of absolute viscosity. (Poises. Test at 70 degrees F.)
Column 9. Fluidity—1/coef. of absolute viscosity
Column 10. Time in minutes during which gas was passed through oil.

Column 6 might not be very clear to the reader unless further explanation is made. The results herein given were obtained by application of a formula advanced by Oberfell and Alden. This formula is as follows:—

$$Sg = 100 \times \frac{Sb - Sn\ (100 - P)}{P}$$ where

Sg=Specific Gravity of one component. (g)
Sn=Specific Gravity of another component. (n)
Sb=Specific Gravity of blend. (b)
P =Percentage (by volume) of g in blend.
100—P=Percentage (by volume) of n in blend.

The gravity of the absorbed gasoline calculated by use of the formula above is undoubtedly rather inaccurate inasmuch as the accuracy of the result would depend upon the precision with which measurement of the ab-

sorbed volume and the specific gravities of the oils were made. The discrepancy is due to the fact that these tests were all run at pressures above atmospheric, from which pressure it was necessary to reduce the pressure to atmospheric before making the volume measurement and obtaining the gravity was possible; this reduction in pressure, particularly in the cases of the oils under the higher pressures, caused a distillation effect of the lighter components; this caused a loss of some of the more volatile components with the consequence that the gravity obtained would be too low the error being higher with the increased test pressures. This error probably explains the reason for the gravities of the gasolines absorbed at higher pressure being lower than the gravities at lower pressures in many cases shown.

### Summary and Conclusions

The writer concludes that:—

Oils having narrow distillation range generally absorb gasoline hydrocarbons to a greater extent than do the same oils which have a wider distillation range.

The most effective oils for use in gas absorption are those which have a distillation range not greater than 100 degrees F. This distillation range should occur between 250 degrees F. and 450 degrees F.

Oils absorb more effectively as their gravities increase between the 32 and 50 A.P.I. provided the initial boiling point is not less than 250 degrees F.

With reference to oils through the ranges of gravity mentioned above, absorption of gas is higher as the viscosity of oil sample is less.

Stripping the plant lean oil should be carried to the highest point consistent with good operation inasmuch as maximum stripping insures absorption of the more volatile gasoline components present in the gas.

Absorption decreases with increase in temperature of gas and oil between 40 degrees F. and 100 degrees F.

Absorption increases with increase in absolute pressure of gas in obedience to Henry's law although certain characteristics of the oils appear to reduce this effect in certain cases.

A "saturation point" is reached, i.e., the point at which the partial pressure of the gas becomes equal to the vapor pressure of the components of the oil and that it is impossible to absorb gases beyond this point unless the absorption will reduce the vapor pressure of the oil or maintain the partial pressure in equilibrium with the partial pressure of the gas.

An oil from a particular field does not necessarily exert the greatest affinity toward gas from that particular field; however, some oils do demonstrate a superiority over other oils irrespective of the fields from which they are taken. In other words the inherent characteristics of cer-


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tain oils apparently make them better absorbents than other oils not having these characteristics.

The last statement does not seem entirely satisfactory to the writer inasmuch as no information is given to prove or disprove the theory that difference in absorption is attributable to definite compositional characteristics of the oils. Therefore, the writer decided at this point to attempt an investigation of the approximate relative composition of various crudes with respect to their bases and absorption tendencies.

**Relative Composition of Various California Crudes With Respect to Their Quantity of Naphthenic or Paraffinic Compounds Present.**

The oils tested were as follows:—
Santa Fe Springs Crude Oil
Coyote Hills " "
Elk Hills " "
Ventura " "
Signal Hill " "
Sample of absorption oil designated as $C_1$

In order to derive a comparison between the various oils mentioned with regard to the base of the oil, the writer followed the method suggested by J. B. Hill and H. B. Coats* in a recent issue of the Industrial and Engineering Chemistry. The method used consisted of a determination of a viscosity-gravity constant for various oils based upon the Saybolt viscosity of the oil (100° F.) and the specific gravity of the oil. The authors explained that, due to the fact that paraffinic oils having the same viscosity as naphthenic oils show a higher A.P.I. gravity (or a lower specific gravity) than the naphthenic oils. By the use of the following equation:—

$$a = \frac{10G - 1.0752 \log (V-38)}{10 - \log (V-38)}$$

the viscosity-gravity constant may be obtained for any oil where:—

a— = viscosity-gravity constant characteristic of different fractions of oil from the same source.
G— = Specific gravity of oil.
V— = Saybolt viscosity at 100 degrees F. (in seconds)

The writer tested four samples from each crude oil, i.e., the original crude oil, two blends of the crude oil with distillate from the same oil and the residue after distillation. In other words, samples of the same oil were tested having a different percentage of low boiling fractions and consequently a varied viscosity. The viscosity-gravity constant appeared to vary considerably with the quantity of low boiling fractions present; the tendency indicated that the paraffinic compounds were present to a greater extent in the low boiling fractions than in the higher boiling ones. However, only the constants which were computed for the crude sample will be considered here; for practical purposes of comparison these constants may be considered to very nearly represent the crude oil and all fractions thereof.

The viscosity-gravity constants are given in the decreasing order of their paraffinic content. Absorption and distillation data will be found in Figure 6.

*Interpretation of Results*: The tests run on the oils from different fields indicated that the oils containing a predominant paraffin base would be more desirable than the oils which had a predominant naphthene base, provided the viscosity of the two oils were the same. While the paraffin base oil did not indicate a very decided superiority in absorption, the advantage gained by the higher distillation range would make it more desirable as it would reduce the shrinkage of the oil when used in the plant and still give a highly effective absorption oil.

This statement should not be construed to be contradictory to the conclusion previously arrived at by the writer in regard to the most effective oils having a distillation range between 250 and 450 degrees F., but rather that a paraffin base oil having a distillation range of say, 350 to 450 degrees F. and having the same viscosity as a naphthene fraction having a distillation of 300 to 400 degrees F., will absorb as well as the naphthene fraction without the shrinkage loss due to oil distilled over with the gasoline which would be encountered with the 300 degree F. initial boiling point material. The condition of the paraffin base oil will also be more constant since the percentage composition with respect to the lighter fractions would not be altered as much as with the lower range naphthene base oil of the same absorption capacity.

The problem was applied to a study of the characteristics of the new and the lean oils in current use in California gasoline plants. The results of this study have been summarized by the Figure 7. The oils from each company have been designated by capital letters, the subscripts 1 and 2 denoting new oil and lean oil respectively, the lean oil having been obtained from the absorption oil circuit at one of the plants. In cases in which samples were obtained from more than one plant a capital letter was also used as a subscript to identify the plant.

**Results Obtained in Plant Practice by the Use of an Absorption Oil Which Conformed with the Recommended Specification.** Several months ago the Pan American Petroleum Co. decided to give the recommended oil a trial and as a result an oil, which partially conformed with specifications, was placed in the circulating system of one of their plants. The A.P.I. gravity of this oil was 40.1, the initial boiling point was 290 degrees F. and the end point was 441 degrees F. This oil conformed with recommendations except that the distillation range was greater than 100 degrees F. The oil which it displaced had an A.P.I. gravity of 33.5, an initial boiling point of 268 and an end point of 696 degrees F.

In order to determine if the new absorption oil would prove effective in actual practice, the writer summarized the production figures prior to, and after having placed the recommended oil in the system.

**Before placing new oil in system.** (Average figure for 20-day period.)
Total Intake—4,996,000 cubic feet. Gasoline Prod.—5939 gallons. Ext. Factor 1.19
**After placing new oil in system.** (Average figure for 20-day period.)
Total Intake—4,783,000 cubic feet. Gasoline Prod.—5061 gallons. Ext. Factor 1.27
Apparent gain in production due to new oil—(1.27-1.19) x 4783—382.6 gal./day.
Average shrinkage loss with old oil..... 98 gals. day
Loss due to contaminated oil 58 gals. day
Total Loss .....156 gals. day
Average shrinkage loss with new type oil —188 gals./day (This figure is higher than the shrinkage of this oil would be if taken over a longer period.)
Increase in oil loss with new oil..... 32 gals./day
Gross increase in gasoline production ..... 382.6 gals./day
Total increase in oil loss 32.0 gals./day
Net increase in gasoline production..... 350.6 gals. day or 134,269 gals./year
Value of product @ $0.07 per gallon— ..... $9398 per year.
Gasoline content of discharge gas (weathered) prior to placing new oil in system ..... 0.23 gals./M
After placing new oil in system..... 0.10 gals./M

The recovery of the gasoline by distillation has dropped from about 94 per cent to approximately 91 per cent since the change was made in the type of absorption oil used. This decrease in the recovery is proof that this oil is capable of extracting a maximum quantity of the valuable gasoline components. Due to the unusually small proportion of highly volatile component present in this particular gas, the effect of this oil is not as marked in this case as it would be in the case of a plant operating with a highly volatile material where the necessity for a selective oil would be very apparent.

Among the more desirable features of the new oil was the low viscosity, which insured lower pumping costs through the plant and consequent lower fuel costs.

The writer wishes to acknowledge the courteous manner in which the various oil companies have cooperated in supplying information, and to express his appreciation of the valuable assistance rendered by M. L. Haider in running tests and compiling data.

---

The Brown Instrument Co., Philadelphia, Pa., is now furnishing die-cast aluminum cases as standard equipment with its thermometers and pressure gages. Die-cast aluminum, cases, which are rust and corrosion-resisting, effect savings in grinding and machining which is necessary with iron castings, and eliminates flaws that frequently occur in iron castings.

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# Expansion and Improvements Cost 68 Companies $619,000,000 in 1927

By Roger B. Stafford
N. P. N. STAFF WRITER

CLEVELAND, Aug. 4

SIXTY-eight oil companies where major interests are in the United States, in 1927 increased the value of their fixed assets $619,160,847 to $7,426,544,217. The increase is probably the sum expended by these companies on new property of all descriptions but is probably only approximately two-thirds of the purchases of the oil industry. This sum was spent in a year when earnings were abnormally small because of overproduction of crude oil and consequent low prices for both crude oil and refined products.

The 68 companies netted only 4.07 per cent on their total invested capital outstanding at the end of the year, compared with 9.54 per cent earned in 1926. Total invested capital includes capital stock, funded debt and reinvested surplus.

Fourteen of the 68 companies lost money on their 1927 operations. The year before only two of the 68 failed to earn a profit.

Assets of the 68 companies *after* depreciation, depletion, and other reserves, amounted to $8,111,638,162, Dec. 31, 1927, compared with $8,024,678,142 Dec. 31, 1926, a gain of $86,960,020 last year after reserves for depreciation, depletion, development costs and similar charges. Before reserves total assets amounted to more than $10,000,000,000.

These reserves amounted to well over 25 per cent of the net value of the assets of the 68 companies and would indicate that the investment in the oil industry in this country or investments of United States companies in foreign oil fields and marketing facilities must be nearer the 15-billion-dollar mark than the 11-billion-dollar mark which for some time has been considered the value of the American oil industry.

The 68 companies include virtually all the major companies. The compilation here does not include thousands of Independent producing and marketing properties and perhaps more than half of the refining and compounding companies. However, it probably contains more than half of the refining capacity of the country.

In a previous article[1] the reports of 33 companies were compiled. In this article 35 companies' reports and the totals for the 33 are included in the tabulation on following pages. In the earlier article it was shown that only 13 netted 6 per cent or better in 1927 on their total invested capital. Only six companies of the 35 companies covered herewith did as well. Two of these companies were specialty manufacturers and one was a transportation company.

The three oil companies which earned 6 per cent or better are the Vacuum Oil Co., Ohio Oil Co. and Pan American Petroleum & Transport Co. The specialty companies are the Chesebrough Mfg. Co. and the Borne Scrymser Co., and the transportation company the Union Tank Car Co. which furnishes tank cars to haul the products of the Standard Oil companies.

One company which lost on its 1926 operations earned a small profit last year, but only a few companies of the group of 68 had as profitable operations in 1927 as in 1926.

Net earnings of 54 companies totaled $330,515,696, and the losses of 14 companies amounted to $35,829,349. In 1926 the profits of 66 companies of this group amounted to $678,703,291 and the losses of two companies to $2,220,917. Net profit for the group in 1927 was $294,686,347 and in 1926 $676,482,374.

Permanent investments of the group increased almost $50,000,000 to $606,899,610. This latter amount represents largely investments in the stock of subsidiary companies and probably the duplications in asset values in several of the companies: for example, the investment of the Standard Oil Co. of Indiana in the Pan American Petroleum & Transport Co.

Quick cash assets of the 68 companies improved last year, the balance sheets of Dec. 31 indicate. The inventory account shows a decline of only $63,000,000, relatively a small amount.

Because some companies have not adopted the A.P.I. uniform method of accounting it is yet impossible to segregate the oil inventory from the material and supplies inventory, but the total given in the accompanying table, $1,243,120,882 for Dec. 31, contains only the oil inventory of most of the larger companies.

Although net working capital Dec. 31, last, was smaller than a year before, the current position was better, current assets being 5 to 1 of current liabilities Dec. 31, compared with a ratio of 4 to 1 a year previous.

There was a decline in amount of capital stock outstanding last year. This was due largely to the retirement of the preferred issues of the Standard of New Jersey and the Shell Union Oil Corp.

Funded indebtedness increased $288,739,179 or 43.2 per cent to $957,616,658. Surplus fell $52,360,979 or 2.5 per cent to $2,064,234,717. The decline in surplus reflects a condi-

## More Use A. P. I. Form

COMPANIES whose annual reports are reviewed in this article and who are using the American Petroleum Institute's uniform balance sheet include:

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Pan American Western Petroleum Co.
Louisiana Oil Refining Corp.
Panhandle Producing & Refining Co.
Producers & Refiners Corp.

These companies bring to 23 the number of large companies that are using the A. P. I. approved form. A list of 13 companies was printed on page 60, NATIONAL PETROLEUM NEWS for April 25, 1928.

1. NATIONAL PETROLEUM NEWS, April 25, 1928, page 55.

tion in which many companies paid their normal dividends partly out of previous earnings.

The Standard Oil Co. of New Jersey netted only 3.4 per cent last year on its $1,177,312,406 invested capital. The Standard of New York netted only 1.8 per cent. Prairie Oil & Gas Co., one of those hardest hit by Mid-Continent overproduction, netted only 1.8 per cent. In 1926 Prairie netted 10.6 per cent.

What officers of some companies wrote their stockholders have been published in previous issues[2] of NATIONAL PETROLEUM NEWS. What officers, presidents and chairmen of some of the companies in the list covered in this article had to say is summarized as follows:

### *Tide Water-Associated Oil Co.*

Axtell J. Byles wrote stockholders:

"Notwithstanding the management's efforts to conserve crude oil in the ground where in present circumstances it belongs, compulsory drilling to protect acreage and to comply with leasehold requirements resulted in a net crude oil production of 23,647,000 barrels during 1927, as compared with net production of 20,204,000 barrels in 1926, an increase of 17 per cent.

"Sixteen per cent more crude was run to stills in 1927 than in 1926, and the volume of crude and products marketed increased 17 per cent. All controllable operating expenses were materially reduced during 1927 and a greater volume of business done, but as a result of overproduction and the destructive competition which such a situation entails, earnings were substantially less."

Tidewater-Associated crude production averaged 74,786 barrels daily in 1927 and 55,353 barrels daily in 1926.

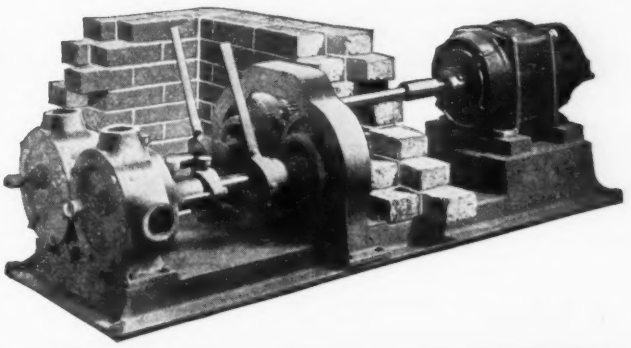
The company and subsidiaries last year spent $22,000,000 on leaseholds, pipe lines, marine tonnage, refinery and marketing facilities in addition to expenditures for plant maintenance. The company charged off $12,400,000 for depreciation and depletion.

### *Pure Oil Co.*

Plant value shows an increase of approximately $5,000,000 in 1927. The company's output of crude and refined oils, was larger, according to Henry M. Dawes, president.

The company retired $9,821,500 of 6½ per cent notes, refinancing with $20,000,000 of 5½ per cent notes.

2. For Union Oil Co. see N. P. N. Feb. 22, 1928, page 31. For Marland Oil Co. N. P. N. March 21, 1928, page 107. For 33 companies referred to in this article see N. P. N. April 25, 1928, page 55. For Standard Oil Co. of New Jersey see N. P. N. May 23, 1928, page 22. For The Texas Corp. see N. P. N. May 2, 1928, page 24.

*Viking Pumps—*
*Single Or In Series*

In the illustration above is shown a Viking Twin Oil Pump. Viking Pumps may be had in multiple series of from two to six pumps.

Our individual friction clutch makes it easy for each or any pump in the series to be operated independently of all the others or any number of the series may be used as desired. A different kind or grade of oil may be handled by each pump in the series at the same time. Capacities range from 50 to 200 gallons per pump per minute. Pumps in series can be furnished with or without fire wall base as desired.

For long life, permanent dependable performance and economical operation the Viking cannot be excelled. Complete catalog and a Special Oil Pump circular of particular interest to oil men free for the asking. Get the Viking Facts—Write us today.

Viking Pump Co., Cedar Falls, Iowa
Walkerville, Ontario, Canada

VIKING PUMPS

RUNDOWN TANKS

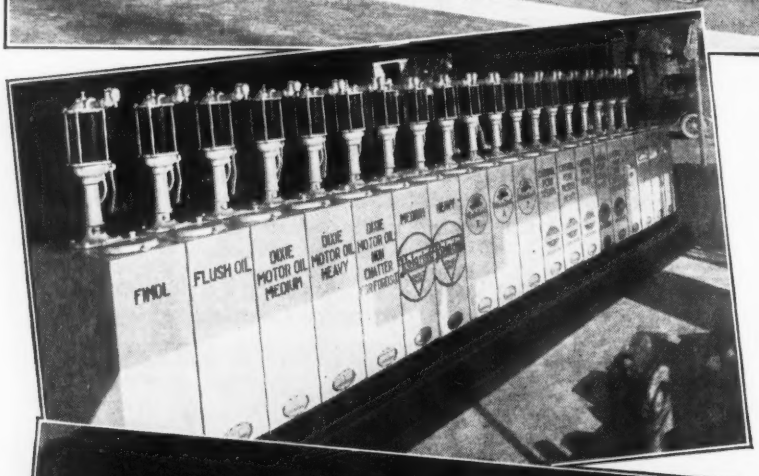
*Electric Welded—Oil Tight*

Field or Factory Built

Send us your specifications and inquiries

BROWN SHEET IRON & STEEL CO.
St. Paul Minnesota

# The Story This



## 49 HIGHBOYS
## are EARNING PROFITS for THIS MARKETER in a Single Service Station!

Upper photo shows a Bennett standard 130 gallon CAR BAR Unit on the service island and another at the quick-service drain pit—each CAR BAR containing 4 standard HIGHBOY units. Through the large window at the right may be seen the battery of 19 HIGHBOYS each holding 60 gallons of a different brand or grade of oil—"close-up" photo to the left. Lower photo shows battery of 22 HIGHBOYS in washing and greasing palace at rear of Consumers Tire Store establishment—giving the motorist the brand of oil he prefers in the exact grade intended for his car by its maker. These 49 HIGHBOYS are selling 1 quart of oil to every 5 gallons of gas—are selling more consumers, more oil per car, and a greater percentage of premium price oils.

***Only Bennett Builds the Original***

# "CAR BAR" (TRADE MARK REG. U.S. PAT. OFFICE) & "HIGH

*(Enclosed HIGHBOY Battery for CAR-SIDE Service)* *(Complete Self-Contained*

# Picture Tells *is* UNDERSTOOD INSTANTLY *by* ALL MOTORISTS

THE very appearance of this station emphasizes the importance of oil—quality oil—under the brand preferred by each motorist—and in the exact grade specified for each motor by the maker of each car.

Such emphasis gets instant response from each motorist—and sells him oil *in addition to whatever else he came in to buy.* It assails him at service island; at drain-pit; and at greasing palace in the rear of the station—and it sells him.

No motorist can resist the combined sales power of oil-suggestion, brand-and-grade display and car-side service from trim, staunch, beautifully finished dispensing equipment—particularly HIGH-BOY and CAR BAR which are the finest and most efficient lube-marketing units in existence.

CAR BAR MODEL 4307

*Write for*

HIGHBOY and CAR BAR *Bulletin*

Covering Units for Every Lube Marketing Needed and Genuine

TRADE MARK REG. U.S. PAT. OFFICE BOY" *Lube-Dispensing Units)*

Bennett Pumps Corporation

QUALITY BUILT

Bennett

Dispensing Equipment FOR OIL MARKETERS

Muskegon, Michigan.

~Symbol of Quality~

# Comparative Income Reports, Assets, Reserves, Current

## (Balance Sheet Items as of Dec. 31)

| Company | Year | Net Operating Income | Net Profits | Net Loss | Per cent of Profit on Total Investment | Total Assets Including Reserves | Fixed Assets Before Reserves | Deprec., Deplet. & Amort. Res. | Permanent Investments |
|---|---|---|---|---|---|---|---|---|---|
| Standard Oil Co., New Jersey | 1927 | $1,093,189,597 | 40,422,857 | ..... | 3.4 | $1,920,592,396 | $1,150,636,023 | $ 493,991,148 | $ 141,363,141 |
| do | 1926 | 1,103,128,731 | 117,652,201 | ..... | 9.3 | 1,958,838,887 | 967,583,728 | 416,793,762 | 133,543,061 |
| Standard Oil Co., New York | 1927 | 52,934,400 | 11,414,888 | ..... | 1.8 | 963,416,732 | 728,695,645 | 285,327,958 | 8,327,151 |
| do | 1926 | 71,646,813 | 32,776,502 | ..... | 5.2 | 947,457,420 | 670,742,146 | 256,245,490 | 6,269,579 |
| Sinclair Consolidated Oil Corp. | 1927 | 31,734,825 | 5,391,081 | ..... | 1.5 | 496,137,865 | 371,002,230 | 128,758,786 | 61,674,095 |
| do | 1926 | 42,939,509 | 17,648,032 | ..... | 5.2 | 476,755,381 | 354,197,567 | 111,938,149 | 60,855,058 |
| Shell Union Oil Corp. | 1927 | 46,798,724 | 11,344,915 | ..... | 3.6 | 456,813,484 | 354,990,238 | 108,684,271 | 3,834,864 |
| do | 1926 | 65,044,901 | 36,518,966 | ..... | 14.3 | 373,890,229 | 306,354,975 | 84,159,016 | 3,350,972 |
| Tide Water Associated Oil Co. | 1927 | 20,718,747 | 5,345,872 | ..... | 3.0 | 347,027,661 | 260,777,912 | 98,118,536 | 11,436,598 |
| do | 1926 | (a)20,521,812 | (a)9,885,908 | ..... | (a)5.7 | 333,553,073 | 224,888,543 | 86,392,974 | 18,527,718 |
| Pan American Petr. & Tran. Co. | 1927 | 23,437,761 | 16,909,040 | ..... | 7.2 | 340,438,188 | 195,245,028 | 89,273,267 | 86,686,021 |
| do | 1926 | 46,911,989 | 31,280,008 | ..... | 13.2 | 336,574,305 | 191,599,205 | 78,778,949 | 81,849,860 |
| Pure Oil Co. | (b)1928 | 14,208,307 | 4,836,529 | ..... | 2.6 | 237,247,535 | 202,285,570 | 48,419,375 | 4,277,574 |
| do | (b)1927 | 22,015,920 | 10,892,544 | ..... | 6.3 | 232,076,139 | 197,272,808 | 45,574,291 | 3,901,849 |
| Prairie Oil & Gas Co. | 1927 | ..... | 2,679,223 | ..... | 1.8 | *186,323,925 | * 50,297,500 | ..... | ..... |
| do | 1926 | ..... | 15,962,367 | ..... | 10.6 | *167,971,629 | * 44,055,836 | ..... | ..... |
| Vacuum Oil Co. | 1927 | ..... | 25,559,900 | ..... | 17.7 | *158,798,137 | * 25,231,613 | ..... | 40,119,302 |
| do | 1926 | ..... | 24,133,655 | ..... | 18.4 | *141,520,066 | * 22,042,989 | ..... | 21,446,521 |
| Ohio Oil Co. | 1927 | ..... | 7,314,572 | ..... | 7.3 | *104,454,747 | * 35,603,551 | ..... | ..... |
| do | 1926 | ..... | 13,536,904 | ..... | 13.4 | *107,669,936 | * 29,230,258 | ..... | ..... |
| Continental Oil Co. | 1927 | 8,649,138 | 0 | $ 135,129 | 0 | 141,511,169 | 117,138,277 | 59,915,637 | 2,470,745 |
| do | 1926 | 13,166,605 | 5,029,660 | ..... | 7.0 | 136,689,298 | 113,488,572 | 53,357,241 | 1,793,584 |
| Mid. Continent Petroleum Corp. | 1927 | 11,188,983 | 3,298,575 | ..... | 4.0 | * 84,200,784 | * 61,711,996 | ..... | 464,686 |
| do | 1926 | 16,994,571 | 8,615,711 | ..... | 10.7 | * 84,065,153 | * 56,466,739 | ..... | 541,767 |
| Borne Scrymser Co. | 1927 | ..... | 114,307 | ..... | 7.4 | 1,878,745 | 714,884 | 235,032 | 511,653 |
| do | 1926 | ..... | 139,266 | ..... | 8.9 | 1,880,354 | 711,948 | 205,997 | 510,158 |
| Chesebrough Mfg. Co. | 1927 | ..... | 1,018,516 | ..... | 23.6 | * 6,102,178 | * 1,629,856 | ..... | ..... |
| do | 1926 | ..... | 967,189 | ..... | 23.4 | * 5,770,925 | * 1,634,815 | ..... | ..... |
| Crystal Oil Ref'g Corp. | 1927 | 353,068 | 59,995 | ..... | 1.8 | 4,573,299 | 3,426,033 | 372,000 | ..... |
| do | 1926 | 480,859 | 279,329 | ..... | 7.0 | 4,405,473 | 2,903,352 | 150,000 | 58,925 |
| Galena Signal Oil Co. | 1927 | ..... | ..... | (f) 2,564,479 | 0 | 32,977,749 | 16,181,697 | 5,347,362 | ..... |
| do | 1926 | ..... | 780,066 | ..... | 2.6 | 43,487,395 | 20,888,408 | 8,342,068 | ..... |
| General Asphalt Co. | 1927 | ..... | 1,329,174 | ..... | 2.9 | 47,781,297 | 37,414,476 | ..... | 37,482 |
| do | 1926 | ..... | 2,001,991 | ..... | 4.5 | 46,545,037 | 35,916,254 | ..... | ..... |
| Indian Refining Co. | 1927 | 798,838 | 6,092 | ..... | 0 | 25,268,593 | 19,742,208 | 3,896,846 | 13,561 |
| do | 1926 | 2,077,971 | 1,030,549 | ..... | 6.1 | 23,663,314 | 17,696,265 | 4,257,069 | 13,561 |
| Maracaibo Oil Exploration Co. | 1927 | ..... | 71,271 | ..... | 1.7 | 5,169,900 | 3,681,276 | 936,292 | ..... |
| do | 1926 | ..... | 42,844 | ..... | 1.0 | 4,162,336 | 3,545,276 | 934,901 | ..... |
| Mexican Seaboard Oil Co. | 1927 | 293,021 | 0 | 2,232,246 | 0 | 15,692,876 | 10,173,613 | 2,234,874 | 2,984,426 |
| do | 1926 | 2,142,728 | 0 | 2,134,642 | 0 | 13,573,646 | 9,127,775 | 2,235,371 | 3,484,717 |
| Mountain & Gulf Oil Co. | 1927 | 711,126 | 0 | (f) 9,298 | 0 | 15,360,321 | 12,082,662 | 5,518,205 | ..... |
| do | 1926 | 1,438,529 | (f) 724,436 | ..... | 7.5 | 15,089,464 | 12,099,922 | 4,797,782 | ..... |
| Pan American Western Pet. Co. | 1927 | 5,996,037 | 74,368 | ..... | 0.2 | * 52,923,560 | * 32,951,223 | ..... | 528 |
| do | 1926 | 7,375,607 | 1,164,624 | ..... | 2.4 | * 63,316,014 | * 35,358,616 | ..... | 5,235,600 |
| Louisiana Oil Ref'g Corp. | 1927 | 2,075,903 | 188,623 | ..... | 1.2 | 29,591,653 | 25,239,049 | 6,627,485 | 28,283 |
| do | 1926 | 4,257,366 | 2,039,377 | ..... | 12.7 | 30,222,290 | 23,713,923 | 5,063,664 | 1,168,058 |
| Panhandle Producing & Ref'g Co. | 1927 | 1,037,860 | ..... | 19,090 | 0 | 13,786,078 | 12,254,784 | 6,263,633 | 242,704 |
| do | 1926 | 610,857 | 325,154 | ..... | 5.4 | 13,547,333 | 12,188,993 | 5,737,113 | 106,545 |
| Pennok Oil Corp. | 1927 | 177,379 | ..... | 6,372 | 0 | 2,626,330 | 2,395,579 | 1,876,386 | 51,017 |
| do | 1926 | 543,697 | 307,096 | ..... | 23.1 | 3,220,808 | 2,331,188 | 1,755,561 | ..... |
| Pierce Petroleum Corp. | 1927 | 1,397,250 | 10,657 | ..... | 0.1 | * 25,445,059 | 16,219,711 | ..... | 126,221 |
| do | 1926 | 1,134,489 | ..... | 86,275 | 0 | * 26,366,742 | 16,094,736 | ..... | 115,000 |
| Producers & Refiners Corp. | 1927 | 2,091,311 | ..... | 3,044,304 | 0 | 65,381,505 | 58,452,896 | 9,076,367 | 1,949,856 |
| do | 1926 | 5,665,903 | 133,344 | ..... | 0.3 | 67,676,990 | 59,409,759 | 8,427,840 | 1,882,636 |
| Shaffer Oil & Ref'g Co. | 1927 | 3,006,784 | (h)1,821,188 | ..... | (h)4.6 | 48,819,605 | 38,329,070 | 3,081,857 | 746,709 |
| do | 1926 | 6,045,575 | (h)4,952,692 | ..... | (h)14.9 | 48,642,191 | 35,621,226 | 4,261,056 | 1,223,252 |
| South Penn. Oil Co. | 1927 | ..... | 1,727,774 | ..... | 3.7 | 48,689,329 | * 21,765,947 | ..... | 12,126,735 |
| do | 1926 | ..... | 3,152,916 | ..... | 6.9 | 49,650,928 | * 22,252,151 | ..... | 11,218,197 |
| Superior Oil Corp. | 1927 | 1,160,069 | ..... | 545,059 | 0 | 16,115,705 | 15,445,847 | 10,771,105 | ..... |
| do | 1926 | 1,088,160 | 75,850 | ..... | 1.3 | 15,891,262 | 14,661,702 | 9,093,691 | ..... |
| Texas Pacific Coal & Oil Co. | 1927 | 2,239,162 | 314,089 | ..... | 1.5 | 35,920,341 | 29,876,958 | 14,821,587 | 1,234,029 |
| do | 1926 | 4,695,476 | 1,578,043 | ..... | 8.0 | 35,306,229 | 27,936,681 | 13,999,214 | 1,160,901 |
| Union Tank Car Co. | 1927 | (i) 3,623,233 | 2,822,410 | ..... | 6.1 | * 47,593,073 | * 39,397,365 | ..... | 269,660 |
| do | 1926 | 7,213,410 | 3,594,921 | ..... | 7.8 | * 47,765,456 | * 39,975,163 | ..... | 269,660 |
| Mountain Producers Corp. | 1927 | 3,391,987 | (fg) 285,555 | ..... | 0.8 | 58,936,929 | 47,397,781 | 23,966,417 | 207,500 |
| do | 1926 | 5,393,517 | (fg)2,831,680 | ..... | 7.6 | 59,699,338 | 46,871,364 | 20,859,985 | 231,000 |
| Salt Creek Producers Ass'n. | 1927 | 3,321,385 | (fg) 126,812 | ..... | 0.3 | 64,914,302 | 49,938,892 | 27,097,060 | 269,660 |
| do | 1926 | 5,181,430 | (fg)2,719,231 | ..... | 6.6 | 66,127,139 | 49,477,860 | 23,902,491 | 269,660 |
| Salt Creek Consolidated | 1927 | 767,743 | ..... | (f) 248,894 | 0 | 28,516,700 | 27,577,878 | 12,697,175 | ..... |
| do | 1926 | 1,788,329 | (fg) 15,947 | ..... | 0.1 | 28,712,159 | 27,472,166 | 11,680,538 | ..... |
| 33 Companies previously reported. | 1927 | ..... | 186,027,413 | 8,043,478 | 5.65 | 4,602,255,959 | 3,350,638,949 | 1 174,336,886 | 225,715,069 |
| do | 1926 | ..... | 325,914,288 | ..... | 10.95 | 4,332,854,227 | 3,111,470,461 | 1,061,016,111 | 198,827,138 |
| Total 68 Companies | 1927 | ..... | $330,515,696 | $ 35,829,349 | 4.07 | $10,733,283,709 | $7,426,544,217 | $2,621 645,547 | $606,899,610 |
| Total 68 Companies | 1926 | ..... | 678,703,291 | 2,220,917 | 9.54 | 10,344,638,466 | 6,807,383,370 | 2,319,960,324 | 557,585,317 |

*After reserves. †Includes materials and supplies. ‡Includes surplus.
(a) Nine months. (b) Fiscal year ended March 31. (c) Includes investments. (e) Depreciation only. (d) Deficit.
(f) Indicated. (g) Before income tax. (h) After taxes and interest but before reserves. (i) After depreciation.

### *Prairie Oil & Gas Co.*

Increase of more than $6,000,000 is shown in the plant account. This evidently represents part of the expenditures for oil and gas properties, equipment, pipe lines and steel storage.

### *Pan American Pet. & Transport Co.*

Investment in properties of this company, exclusive of the Lago Oil & Transport Corp., in 1927 amounted to $3,645,822. The Lago corporation and subsidiaries invested $15,985,543, making a total increase in property investment of $19,631,365, R. G. Stewart, president, stated.

The Pan American owns 95 per cent of the Lago stock but the Lago's accounts were not consolidated with Pan American's in the 1927 report because an audit of Lago had not been completed.

Production of Pan American in Mexico, Venezuela and the United States amounted to 38,896,300 barrels last year, compared with 39,801,500 barrels in 1926. Mexican production fell 8,900,000 barrels and Venezuelan production rose 8,500,000 barrels.

Refining facilities are being expanded by the erection of a refinery

# Position, Working and Invested Capital of 35 Companies

## (For Explanatory Text See Accompanying Pages)

| Cash and Marketable Securities | Refined & Crude Oil Inventory | Total Current Assets | Total Current Liabilities | Net Indicated Working Capital | Capital Stock | Funded or Deferred Debt | Surplus | Year | Company |
|---|---|---|---|---|---|---|---|---|---|
| $169,763,891 | $228,063,518 | $615,098,393 | $ 98,702,053 | $516,396,340 | $607,930,475 | $169,239,000 | $400,142,931 | 1927 | Standard Oil Co., New Jersey |
| 210,447,186 | †303,068,933 | 857,612,098 | 259,217,585 | 598,394,513 | 717,370,450 | 120,000,000 | 426,790,797 | 1926 | ..... do |
| 17,043,887 | 135,092,339 | 218,730,399 | 41,430,112 | 117,300,287 | 427,973,275 | 107,857,640 | 86,758,712 | 1927 | Standard Oil Co., New York |
| 38,160,780 | 151,187,871 | 263,119,741 | 43,126,470 | 219,993,271 | 420,248,275 | 114,172,500 | 94,651,700 | 1926 | ..... do |
| 10,808,467 | 23,617,471 | 54,036,590 | 16,777,348 | 37,259,242 | 221,019,129 | 92,333,236 | 32,786,483 | 1927 | Sinclair Consolid'd Oil Corp. |
| 7,742,461 | 29,805,546 | 52,568,660 | 19,818,425 | 32,750,235 | 221,624,529 | 88,059,784 | 28,927,232 | 1926 | ..... do |
| 49,648,808 | 24,393,420 | 91,096,154 | 18,235,122 | 72,861,032 | 201,412,821 | 79,745,000 | 30,628,358 | 1927 | .....Shell Union Oil Corp. |
| 29,915,025 | 22,759,467 | 61,371,273 | 17,955,370 | 43,415,903 | 218,378,221 | 1,646,996 | 35,288,572 | 1926 | ..... do |
| 10,380,558 | 31,271,338 | 60,639,263 | 13,983,417 | 46,655,846 | 144,741,065 | 28,821,788 | 3,164,310 | 1927 | Tide Water Associated Oil Co. |
| 12,805,064 | 45,172,102 | 81,824,872 | 23,339,960 | 58,484,912 | 147,260,819 | 22,775,351 | 3,595,028 | 1926 | ..... do |
| 12,573,928 | 15,199,201 | 42,072,710 | 16,078,379 | 25,994,331 | 169,289,404 | 12,440,400 | 53,356,738 | 1927 | Pan-Amer. Petr. & Tran. Co. |
| 26,533,377 | 14,089,015 | 59,120,665 | 20,845,800 | 38,274,865 | 169,057,557 | 15,196,040 | 52,695,958 | 1926 | ..... do |
| 5,154,405 | 12,354,492 | 28,174,894 | 4,161,962 | 24,012,932 | 105,258,450 | 20,000,000 | 59,407,748(b) | 1928 | .....Pure Oil Co. |
| 3,618,412 | 13,328,950 | 28,570,788 | 13,658,701 | 14,912,087 | 100,758,450 | 9,931,500 | 62,000,454(b) | 1927 | ..... do |
| 21,992,104 | 91,019,054 | 136,026,424 | 35,906,624 | 100,119,800 | 60,175,000 | 0 | 89,937,701 | 1927 | ....Prairie Oil & Gas Co. |
| 24,420,377 | 79,261,239 | 123,915,794 | 16,852,166 | 107,063,628 | 60,000,000 | 0 | 90,962,163 | 1926 | ..... do |
| 32,103,587 | †34,456,674 | 93,118,778 | 11,771,263 | 81,347,515 | 62,809,550 | 0 | 81,717,324 | 1927 | .....Vacuum Oil Co. |
| 21,858,105 | †36,178,537 | 97,378,318 | 7,849,382 | 89,528,936 | 62,470,800 | 0 | 68,699,884 | 1926 | ..... do |
| (c)28,354,949 | †34,243,489 | 66,302,538 | 3,370,585 | 62,931,953 | 60,000,000 | 0 | 40,494,884 | 1927 | .....Ohio Oil Co. |
| (c)37,934,919 | †33,867,609 | 75,904,530 | 1,317,707 | 74,686,823 | 60,000,000 | 267,000 | 41,045,432 | 1926 | ..... do |
| 5,946,283 | 8,308,163 | 20,003,228 | 3,174,830 | 16,828,398 | 36,123,350 | 14,016,500 | 27,039,376 | 1927 | .....Continental Oil Co. |
| 4,422,896 | † 9,530,649 | 20,369,072 | 9,704,717 | 10,664,355 | 35,805,260 | 2,986,700 | 33,093,029 | 1926 | ..... do |
| 7,325,825 | 8,222,455 | 20,341,344 | 2,230,017 | 18,111,327 | 48,790,665 | 9,893,000 | 22,861,021 | 1927 | Mid-Continental Petrol. Corp. |
| 10,234,576 | 8,313,119 | 25,025,880 | 3,406,578 | 21,619,302 | 47,312,539 | 10,969,000 | 22,043,620 | 1926 | ..... do |
| 104,346 | † 414,290 | 651,438 | 28,017 | 623,421 | 1,000,000 | 0 | 543,244 | 1927 | .....Borne Scrymser Co. |
| 97,268 | † 402,445 | 657,751 | 37,517 | 620,234 | 1,000,000 | 0 | 568,938 | 1926 | ..... do |
| (c)2,589,724 | † 1,517,175 | 4,377,580 | 113,425 | 4,264,155 | 3,000,000 | 0 | 1,318,977 | 1927 | ....Chesbrough Manuf. Co. |
| (c)2,031,067 | † 1,653,113 | 4,051,422 | 139,888 | 3,911,534 | 3,000,000 | 0 | 1,126,671 | 1926 | ..... do |
| 215,094 | 269,410 | 853,382 | 270,696 | 582,686 | 2,584,710 | 374,000 | 329,447 | 1927 | Crystal Oil Refining Corp. |
| 579,424 | † 261,213 | 1,136,694 | 286,058 | 850,636 | 3,229,268 | 457,000 | 279,329 | 1926 | ..... do |
| 1,936,859 | † 4,629,824 | 9,233,694 | 382,735 | 8,850,959 | 22,000,000 | 5,630,100 (d) | 789,996 | 1927 | .....Galena Signal Oil Co. |
| 2,006,656 | † 9,090,064 | 15,037,850 | 3,888,584 | 11,149,266 | 22,000,000 | 6,692,900 | 1,534,483 | 1926 | ..... do |
| 1,487,267 | † 4,923,404 | 7,882,015 | 1,198,507 | 6,683,508 | 31,000,000 | 4,752,700 | 9,520,462 | 1927 | .....General Asphalt Co. |
| 2,153,347 | † 4,144,393 | 7,718,500 | 1,304,170 | 6,414,300 | 31,000,000 | 4,659,200 | 8,540,245 | 1926 | ..... do |
| 372,140 | † 2,253,241 | 4,143,887 | 1,976,573 | 2,167,314 | 10,147,080 | 4,084,091 | 5,061,463 | 1927 | .....Indian Refining Co. |
| 314,239 | † 2,238,712 | 4,471,789 | 2,467,769 | 2.004.020 | 10,147,080 | 1,842,843 | 4,898,710 | 1926 | ..... do |
| 1,060,743 | 0 | 1,061,102 | 0 | 1,061,102 | ‡ 4,233,608 | 0 | ..... | 1927 | Maracaibo Oil Explorat'n Co. |
| 1,148,107 | 0 | 1,153,242 | 0 | 1,153,242 | ‡ 4,162,337 | 0 | ..... | 1926 | ..... do |
| 280,909 | 15,635 | 401,332 | 3,425,486 | 0 | 6,510,039 | 3,500,000 (d) | 1,984,164 | 1927 | ...Mexican Seaboard Oil Co. |
| 387,166 | 30,951 | 764,354 | 1,267,760 | 0 | 6,510,039 | 3,500,000 | 0 | 1926 | ..... do |
| 2,514,713 | ..... | 3,002,505 | 241,712 | 2,760,793 | 3,705,200 | 0 | 5,681,055 | 1927 | ...Mountain & Gulf Oil Co. |
| 2,239,894 | ..... | 2,725,579 | 153,403 | 2,572,176 | 3,705,200 | 0 | 6,129,093 | 1926 | ..... do |
| 1,436,976 | †14,976,350 | 18,831,320 | 9,673,561 | 9,157,759 | 11,750,235 | 25,125,600 | 6,374,164 | 1927 | Pan-Amer. West. Petr'm. Co |
| 2,090,936 | †15,238,465 | 20,657,608 | 9,060,040 | 11,597,568 | 11,750,235 | 26,670,000 | 10,902,566 | 1926 | ..... do |
| 168,752 | 1,351,491 | 3,518,362 | 1,516,181 | 2,002,281 | 8,969,095 | 0 | 6,362,571 | 1927 | ....Louisiana Oil Refin'g Co. |
| 426,088 | 1,763,596 | 4,424,474 | 2,028,662 | 2,395,812 | 8,969,095 | 399,000 | 6,652,145 | 1926 | ..... do |
| 113,537 | 450,485 | 1,238,299 | 693,970 | 544,329 | 5,401,653 | 0 | 326,211 | 1927 | Panhandle Prod. & Ref. Co. |
| 82,900 | 289,232 | 1,165,294 | 960,538 | 204,756 | 5,672,907 | 0 | 326,211 | 1926 | ..... do |
| 73,321 | † 71,532 | 178,989 | 54,953 | 124,036 | ‡ 651,402 | 0 | ..... | 1927 | .....Pennok Oil Corporat'n |
| 700,515 | † 70,925 | 872,144 | 103,112 | 769,032 | ‡ 770,273 | 554,000 | ..... | 1926 | ..... do |
| 1,102,327 | † 5,076,055 | 8,582,845 | 3,810,295 | 4,772,550 | 19,134,519 | 900,000 (d) | 460,856 | 1927 | ....Pierce Petroleum Corp. |
| 510,721 | † 6,121,305 | 9,702,716 | 4,443,255 | 5,259,461 | 19,134,519 | 1,017,000 (d) | 289,134 | 1926 | ..... do |
| 290,642 | 1,836,768 | 4,411,458 | 15,397,210 | 0 | 40,284,300 | 2,650,374 (d) | 2,903,857 | 1927 | ..Producers & Refiners Corp. |
| 403,901 | 2,716,463 | 5,651,843 | 14,505,916 | 0 | 40,284,300 | 3,362,694 | 140,447 | 1926 | ..... do |
| 976,489 | † 2,955,926 | 5,745,055 | 3,007,999 | 2,737,056 | 16,084,051 | 21,305,003 | 2,084,051 | 1927 | ..Shaffer Oil & Refining Co. |
| 942,707 | † 2,694,795 | 7,784,513 | 6,077,152 | 1,707,361 | 14,168,464 | 16,791,835 | 2,157,027 | 1926 | ..... do |
| 3,257,551 | †10,829,263 | 14,755,814 | 2,527,657 | 12,228,057 | 20,000,000 | 0 | 26,122,521 | 1927 | .....South Penn Oil Co. |
| 4,430,489 | †11,703,424 | 16,133,913 | 1,683,880 | 14,450,033 | 20,000,000 | 0 | 25,994,746 | 1926 | ..... do |
| 106,959 | 163,757 | 693,647 | 262,229 | 431,418 | 8,328,215 | 310,700 (d) | 3,556,544 | 1927 | .....Superior Oil Corp. |
| 526,385 | 46,486 | 1,187,859 | 1,028,642 | 159,217 | 8,318,215 | 462,200 (d) | 3,011,485 | 1926 | ..... do |
| 1,085,653 | 1,236,328 | 3,896,741 | 672,245 | 3,224,496 | 8,448,048 | 401,420 | 11,550,303 | 1927 | Texas Pacific Coal & Oil Co. |
| 1,479,572 | 771,770 | 4,259,911 | 731,021 | 3,528,890 | 8,448,048 | 73,500 | 11,126,752 | 1926 | ..... do |
| 6,041,999 | ..... | 8,025,256 | 482,976 | 7,542,280 | 30,844,000 | 11,700,000 | 3,738,052 | 1927 | .....Union Tank Car Co |
| 5,684,935 | ..... | 7,538,061 | 605,425 | 6,932,636 | 30,734,000 | 13,000,000 | 2,454,093 | 1926 | ..... do |
| 5,509,451 | 5,137,527 | 11,239,760 | 1,181,691 | 10,058,069 | 16,821,820 | 0 | 16,626,721 | 1927 | ..Mountain Producers Corp. |
| 6,530,566 | 5,112,527 | 12,451,120 | 1,140,652 | 11,310,468 | 16,821,820 | 0 | 20,447,128 | 1926 | ..... do |
| 8,203,647 | 5,112,527 | 14,460,170 | 58,027 | 14,402,143 | 14,968,598 | 0 | 22,031,570 | 1927 | Salt Creek Producers Ass'n. |
| 9,696,751 | 5,112,527 | 16,128,712 | 139,986 | 15,988,726 | 14,968,598 | 0 | 26,258,968 | 1926 | ..... do |
| 788,190 | 58,220 | 922,596 | 330,189 | 592,407 | 12,863,000 | 0 | 2,458,147 | 1927 | ....Salt Creek Consolidated |
| 1,009,583 | 57,306 | 1,184,964 | 316,474 | 868,490 | 12,863,000 | 0 | 3,572,340 | 1926 | ..... do |
| 262,004,586 | 533,600,060 | 963,102,022 | 193,768,475 | 769,333,547 | 1,702,476,043 | 342,536,106 | 1,025,505,589 | 1927 | 33 Companies prev'ly report'd |
| 189,120,301 | 488,029,146 | 988,194,210 | 220,637,888 | 767,556,322 | 1,715,630,351 | 203,390,456 | 1,026,992,554 | 1926 | ..... do |
| $672,818,567 | $1,243,120,882 | $2,536,849,984 | $506,896,521 | $1,983,963,369 | $4,146,730,800 | $957,616,658 | $2,064,234,717 | 1927 | Total 68 Companies |
| 662,736,696 | 1,304,111,895 | 2,881,836,214 | 710,100,653 | 2,181,193,010 | 4,273,534,649 | 668,877,479 | 2,116,595,696 | 1926 | Total 68 Companies |

on Aruba island, Dutch West Indies, which will run Venezuelan crude, and an asphalt plant at Hamburg, Germany.

### *Continental Oil Co.*

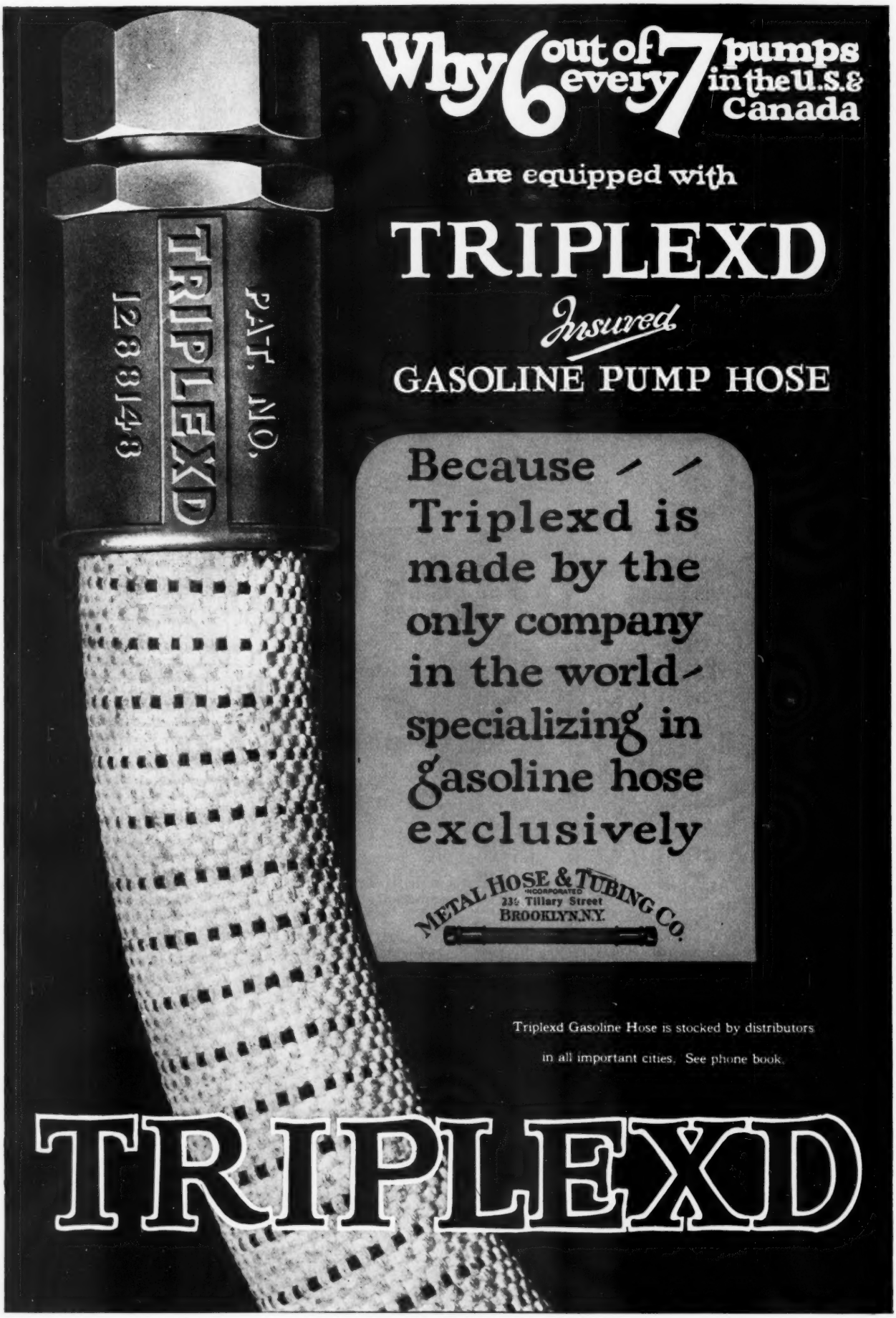
Plant account of Continental Oil Co. increased $5,524,675 after deductions of reserves for depreciation, depletion and development costs. Concerning the year's operations E. T. Wilson, chairman, and S. H. Keoughan, president, wrote:

"The company enjoyed a substantial increase in the volume of business done by all departments. At the end of the year the financial condition was satisfactory, with net current assets of approximately $17,000,000 and a ratio of over 6 to 1 as against current liabilities. The sharp decline in earnings is accounted for by the demoralized price conditions.

"The company's crude oil production is almost entirely high gravity oil for which was received an average price during the year 1927 of almost one dollar per barrel less than the average price in 1926. The gross crude production for the year was 10,400,000 barrels and the net production of crude oil after deducting all royalties or other interests was approximately 7,200,000 barrels, although a substantial amount of high gravity oil was shut in.

"The net earnings of the company

(*Continued on Page* 81)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(*Continued from Page* 77)

after all expenses, unusually severe inventory adjustments and approximately $3,000,000 written off for intangible drilling costs, but before reserves, were $5,556,000. The dividends paid in 1927 amounted to $3,758,000, and it was the judgment of the Board of Directors that the difference of $1,798,000 was an inadequate amount to carry to reserves for depletion and depreciation and that the best interests of the stockholders would be served by passing the dividend until conditions in the industry improved.

"During the year the company made important new discoveries which in our judgment have increased our petroleum reserves. Substantial additions and improvements were also made to our marketing, refining and other facilities."

### *Sinclair Consolidated Oil Corp.*

Operating subsidiaries of this company, according to Harry F. Sinclair, chairman, spent approximately $21,000,000 on development of and additions to property in 1927, divided about as follows: $8,000,000 for drilling of wells and developing of oil properties; $2,600,000 for undeveloped oil and gas leases; $3,300,000 for casinghead gasoline plants; $1,800,000 for refinery improvements, and $2,800,000 for marketing facilities.

Sinclair's net production of crude oil averaged 40,285 barrels daily, compared with 30,797 barrels daily in 1926. Total net production last year, 14,704,201 barrels, had a market value of $21,980,803 or $1.49 a barrel. The 11,240,799 barrels produced in 1926 had a market value of $27,679,097 or $2.45 a barrel.

Natural gasoline production of Sinclair last year averaged 217,992 gallons a day, compared with 120,479 gallons a day in 1926.

Sales of gasoline and other products at the company's own stations increased 17 per cent. The company reported sales of its "HC" gasoline exceeded expectations. This gasoline was introduced in 1926. Since Jan. 1, 1928, the company has brought out an aviation gasoline which it has named "Aircraft."

Statistics bearing on operations the last three years compare:

| | 1927 | 1926 | 1925 |
|---|---|---|---|
| Net crude oil production in U. S. (bbls.) | 14,704,201 | 11,240,799 | 9,058,709 |
| Net crude oil production in Mexico (bbls.) | 2,765,416 | 2,685,890 | 4,475,345 |
| Net casinghead gasoline production (gals.) | 79,566,923 | 43,974,677 | 22,134,578 |
| Crude oil run through gasoline and lubricating oil refineries (bbls.) | 28,361,483 | 24,766,326 | 20,048,306 |
| Crude oil run through asphalt refinery (bbls.) | 1,948,238 | 3,284,729 | 5,807,013 |
| Gasoline sold (gals.) | 791,392,154 | 683,048,593 | 601,938,164 |
| Oil cargoes transported by tank steamships, exclusive of Cuban intercoastal shipments and barge deliveries (bbls.) | 17,920,810 | 17,605,032 | 17,561,024 |
| Sinclair Pipe Line Co. (50% owned)— crude oil deliveries (bbls.) | 32,253,191 | 29,621,997 | 28,971,931 |
| Sinclair Crude Oil Purchasing Co. (50% owned)—Net amount of crude oil on hand Dec. 31 (bbls.) | 36,036,053 | 34,230,757 | 38,079,761 |

Of the company's income $2,972,350 came from investments in non-controlled companies, the chief of which were the 50 per cent owned Sinclair Pipe Line Co. and Sinclair Crude Oil Purchasing Co.

### *Shell Union Oil Corp.*

Net production of the Shell Co. of California, Wolverine Petroleum Co. and Roxana Petroleum Corp., including Roxana's share in the production of the Comar Oil Co., amounted to 36,617,628 barrels net and 42,363,941 barrels gross last year. Daily average production of the combined companies Dec. 31, 1927, was 107,995 barrels, compared with 103,664 barrels Dec. 31, 1926.

The Shell Co. of California at the end of the year had 268 wells with potential production of 20,000 barrels daily shut in. Other subsidiaries had 20,000 barrels production shut in at the end of the year. The total amount of shut in production had risen to 70,000 barrels by May 1, 1928, J. C. van Eck, president of Shell Union, wrote stockholders.

Trunk and main pipe lines Dec. 31 totaled 2064 miles.

Refineries of the subsidiary companies charged 53,536,326 barrels of crude last year, a daily average of 146,672 barrels. This compares with 45,163,067 barrels charged in 1926, a daily average of 123,734 barrels. At the end of the year charges of crude oil and pressure distillate amounted to 220,000 barrels daily, compared with 180,000 barrels daily at the end of 1926.

Casinghead gasoline production totaled 138,574,062 gallons last year, a daily average of 379,655 barrels. In 1926 production was 86,764,589 gallons, a daily average of 237,711 gallons.

Volume of sales increased more than 10 per cent but cash value of sales was $140,325,813, less than in the preceding year. An important factor in lowering stocks of gasoline is revealed by Mr. van Eck in this paragraph:

"Your board adopted and suggested the policy of marketing a lower end point gasoline, which would reduce the output of that product by elimination of the high boiling fractions, as a remedy for demoralization of the gasoline market. Many companies followed this policy and your board is of the opinion that the great improvement in the gasoline situation, now that stocks of gasoline are about 12,000,000 barrels less than they were

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Turn your "drive in" customers into bulk buyers and get ALL their business. Double and treble your volume of gas and oil sales. Others are doing it. So can you with this new

**Kwart Kwick Home Oil Pump**

This handy pump fits any drum or barrel. Ideal for home garages, working equally well with oil, gas or other liquids. Nominal in cost—long wearing. Built of finest brass, steel and cast iron. Big discounts to oil companies for quantities.

Write for details of special sales plan now succeeding for many companies. Mail the coupon below.

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**VIKING PUMP COMPANY**
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Viking Pump Co., Dep't. B., Cedar Falls, Ia.
Please send details about your Kwart Kwick Pump and your special sales plan.

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# Canfield

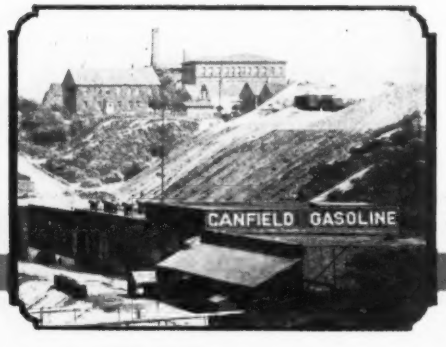
## CANFIELD FILTERED OILS

## *Build Business—and Hold It!*

FROM Canfield's Cleveland Refinery come many of the Canfield Products listed on opposite page. In particular, Canfield Filtered Motor Oils and Neutrals.

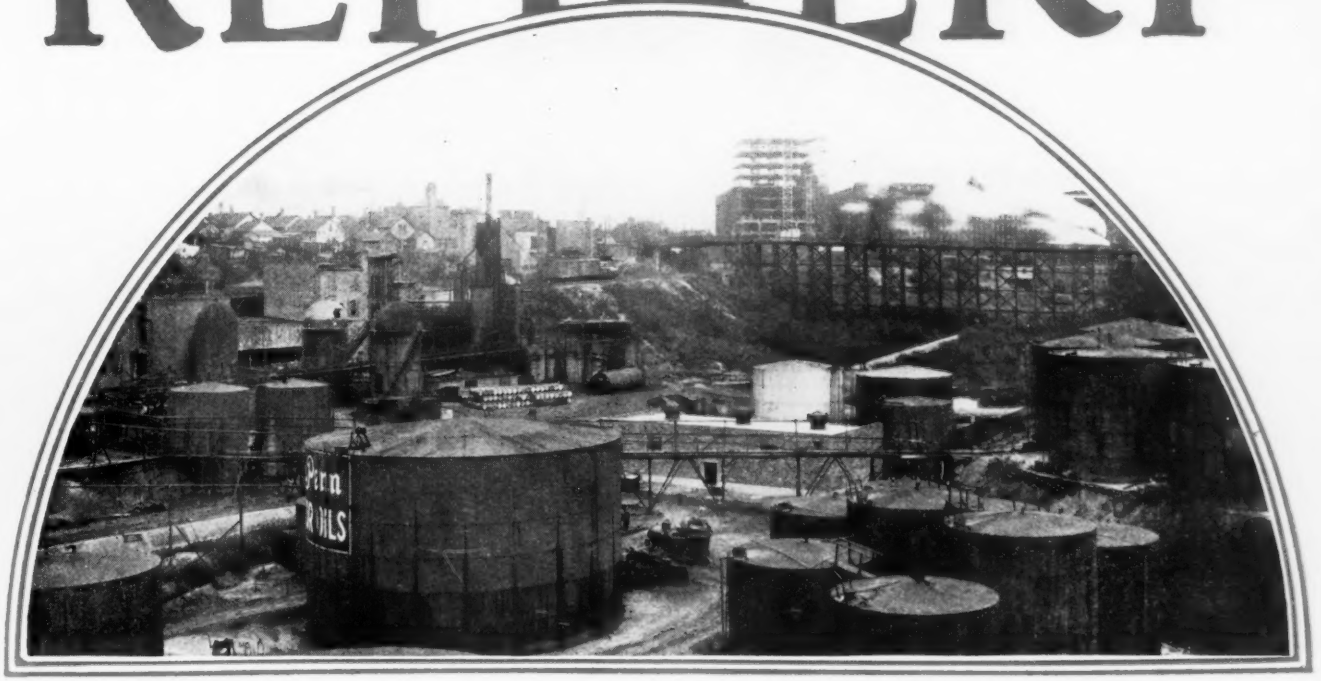
On both Hemispheres, Canfield Filtered Motor and Tractor Oils have earned a name for themselves as a rare combination of outstanding quality and attractive price. They are made from Mid-Continent paraffine base crude. They are painstakingly filtered for many hours through Fuller's Earth. They will appeal to your customers because of their full-bodied consistency—their ability to withstand heat and breakdown—their clarity and brightness. They come in all weights to meet all the demands of your trade.

Canfield Filtered Neutrals excel where quick water separation is required. They are also popular for blending with bright stocks to produce various specialized lubricants.




*The Wax Plant*
*Canfield Cleveland Refinery*

# Cleveland REFINERY




Don't forget Canfield Filtered Oils and Neutrals when you plan your next Assorted Carlot, or straight or compartment tank car. Check the list below and mail it. Our quotations will prove interesting. May we send samples, too?

## THE CANFIELD OIL COMPANY

*Serving Jobbers Since 1886* *General Offices:* Cleveland, Ohio

*Refineries:* Cleveland, Ohio; Coraopolis, Pa. *Compounding and Grease Plant:* Cleveland
*Greater New York Plant:* 285 Tonnelle Ave., Jersey City

*Canfield Products are favorably known in Egypt*

| Tank Cars | Drums | | Drums | Barrels | Small Packages | |
|---|---|---|---|---|---|---|
| ☐ | ☐ | Premium Motor Oils (100% Penna.) | ☐ | ☐ | ☐ | CANFIELD PRESS-SURE LUBRICANT |
| ☐ | ☐ | Premium Tractor Oils (100% Penna.) | ☐ | ☐ | ☐ | ZERO GEAR COMPOUND |
| ☐ | ☐ | Canfield Filtered Motor Oils | ☐ | ☐ | ☐ | P. O. C. GEAR COMPOUND |
| ☐ | ☐ | Mid-Continent Motor Oils | ☐ | ☐ | ☐ | Cup Greases |
| ☐ | ☐ | Mid-Continent Tractor Oils | ☐ | ☐ | ☐ | Crank Pin Grease |
| ☐ | ☐ | Zero Oils | ☐ | ☐ | ☐ | Graphite Grease |
| ☐ | ☐ | Black Oils | ☐ | ☐ | ☐ | Fibre and Sponge Grease |
| ☐ | ☐ | Car Oils | ☐ | ☐ | ☐ | Mine Car Greases |
| ☐ | ☐ | Castor Machinery Oils | ☐ | ☐ | ☐ | Axle Grease |
| ☐ | ☐ | Soluble Oils | ☐ | ☐ | ☐ | Gear Shield |
| ☐ | ☐ | Cutting Oils | | ☐ | ☐ | Auto Soap |
| ☐ | ☐ | Viscous Neutrals | | ☐ | ☐ | Petrolatums |
| ☐ | ☐ | Non-Viscous Neutrals | | | ☐ | Belt Stick |
| ☐ | ☐ | Red Oils | | | | |
| ☐ | ☐ | Filtered Cylinder Stocks | | | | |
| ☐ | ☐ | Steam Refined Cylinder Stocks | | | | |
| | ☐ | Belt Oil | | | | |

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Canfield QUALITY EXPERIENCE SINCE 1886 OIL CO.

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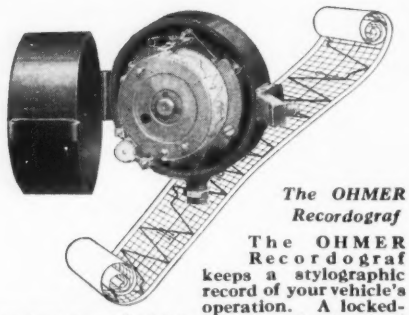

*The OHMER Recordograf*

**The OHMER Recordograf keeps a stylographic record of your vehicle's operation. A locked-in tape is worked by a clock mechanism and by the transmission. When the vehicle is running a pencil moves back and forth across this tape. The combined movements of the tape and pencil produce a *composite record* of the day's run. It gives all the vital facts—the rate of speed; the amount of idle time; the distance the vehicle traveled and the number of stops.**

The OHMER Recordograf works for you during each minute of each day. It discovers which trucks are using too much fuel. It singles out those being needlessly depreciated by excess driving. It helps you eliminate idle time and other non-productive overhead. It enables you to recognize the efficient and competent drivers. It shows you how to operate your vehicles on a most economical basis.

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Ask for our systems of keeping commercial vehicle accounts. They're simple and practical. They'll show you how to operate your trucks and vehicles with the least expense. Just pin the coupon below to your letterhead and mail it *today*. We'll give your inquiry prompt and expert attention. You do not obligate yourself in any way.

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**May be placed under hood, on instrument board, on frame, or wherever wanted. Large figures snap into full position.**

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**Replaces hub housing of any car or truck. Figures always right side up.**

# OHMER

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**FARE REGISTER COMPANY**

**Dayton, Ohio, U. S. A.**

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a year ago, can be largely attributed to it."

The corporation retired its $16,965,400 preferred stock last year but issued $80,000,000 of debentures to provide for the retirement and for development work.

Employes at the end of the year totaled about 20,000.

No statement was made of the amount spent on expansion, development and improvements.

### *Vacuum Oil Co.*

Increase of more than $3,000,000 is shown in plant and equipment account. Concerning the company's excellent showing last year, George V. Holton, secretary, wrote stockholders:

"Due to the expansion of the Vacuum organizations as a whole and their increased volume of sales, we have been fortunate in maintaining net profits fairly equivalent to the net earnings of the previous year in spite of reduced profit per unit sales."

### *Ohio Oil Co.*

Property increase of the Ohio Oil Co. was more than $6,000,000. The inventory account increased $375,880. This increase included both oils and supplies.

### *Mid-Continent Petroleum Corp.*

This company reported an increase of $5,245,257 in property account, after all reserves. It reduced its bonded and current indebtedness by more than $1,000,000 each. Value of inventories was $287,833 less Dec. 31 than a year before.

### *Crystal Oil Refining Co.*

This company spent $470,000 on improvements in one of its two refineries and was able to make one plant do the work two plants previously had done. This arrangement also allowed a reduction of 17 per cent in the operating force.

Two cracking stills which were installed early last year were operated eight months, paying in profits 40 per cent of the cost of installation, G. L. Eastabrook, president, informed stockholders. A pipe still, bubble towers, gasoline recovery plant, and continuous treating plant were other improvements.

Output capacity of the refinery now is given at 1,100,000 barrels of gasoline, 500,000 of kerosene, 700,000 of gas oil, and 1,360,000 of fuel oil yearly.

The company's pipe lines transported more than 1,300,000 barrels of crude oil from pools in the Caddo and Red River parishes.

### *Galena-Signal Oil Co.*

Market outlets of this company in the last few years has been greatly curtailed by the adoption of electrical headlights on locomotives and electrical and other hand signal lanterns,

M. J. A. Bertin, president, informed stockholders.

The company's Canadian subsidiary, threatened by growing competition, was sold to Imperial Oil, Ltd., at a profit, Mr. Bertin wrote. Other foreign activities were profitable. Confidence was expressed that a substantial part of its investment in the Galena-Signal Oil Co. of Texas would be retrieved after creditors and bondholders had been paid.

During the year the parent company retired $1,675,000 in bank indebtedness.

### *General Asphalt Co.*

Crude oil production and royalty interests of General Asphalt amounted to 2,010,330 barrels in 1927, compared with 1,788,948 barrels in 1926. Last year it completed a cracking plant at Perth Amboy, N. J., and building of a topping plant of improved type was authorized.

### *Indian Refining Co.*

This company spent approximately $2,500,000 on improvements in 1927, about 60 per cent on marketing facilities and 40 per cent on refining equipment, J. H. Graham, president, wrote stockholders.

The company produced 93,955,622 gallons of gasoline last year, 70 per cent of which was marketed through its own stations or own pumps. It used 500,000 barrels less crude oil to produce this volume of gasoline than it used in 1924 to produce 57,216,972 barrels of gasoline.

Low prices caused a fall in gross sales receipts from $23,657,732 in 1926 to $19,024,232 last year.

### *Louisiana Oil Refining Corp.*

This company in 1927 produced 1,932,818 barrels of crude oil and 1,273,112,000 cubic feet of gas. It drilled only 25 wells of which 24 were oil producers and one a gasser. In the Allen district of Seminole and Pontotoc counties, Oklahoma, it completed 14 wells from July to the end of the year from which it produced 199,955 barrels of crude, which had a value of $257,292. From its Oklahoma properties it is selling 12,000,000 cubic feet of gas daily and its shut in gas production is estimated at 30,000,000 to 40,000,000 cubic feet daily.

It expanded its pipe lines system which gathered 5,968,000 barrels of

## Total Invested Capital

| | 1927 | 1926 |
|---|---|---|
| Standard Oil Co., New Jersey | $1,177,312,406 | $1,264,161,247 |
| Standard Oil Co., New York | 622,589,627 | 629,072,475 |
| Sinclair Consolidated | 346,138,848 | 338,611,545 |
| Shell Union Oil Corp. | 311,786,179 | 255,313,789 |
| Tide Water-Associated | 176,727,163 | 173,631,198 |
| Pan American P. & T. | 235,086,542 | 236,949,555 |
| Pure Oil Co. | †184,666,198 | ‡172,690,404 |
| Prairie Oil & | | |

"QUICK-TOP" CARRYING CAN

HERE is the can that saves time and speeds up deliveries by its quick acting top—opens on one-eighth turn. Leak proof, gives lasting service. Answers all requirements better than any can yet produced. Made in black steel, painted in desired color, or hot-dip galvanized. Electric welded construction.

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CRUDE OIL FUEL OIL GAS OIL FURNACE OIL
CYLINDER STOCKS
UNFILTERED AND FILTERED
BRIGHT STOCKS
COLD SETTLED AND CENTRIFUGED
PALE — RED OILS
WAX — PETROLATUM
TECHNICAL WHITE OILS
WHITE MINERAL OILS

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*This Company enjoys an International Reputation*

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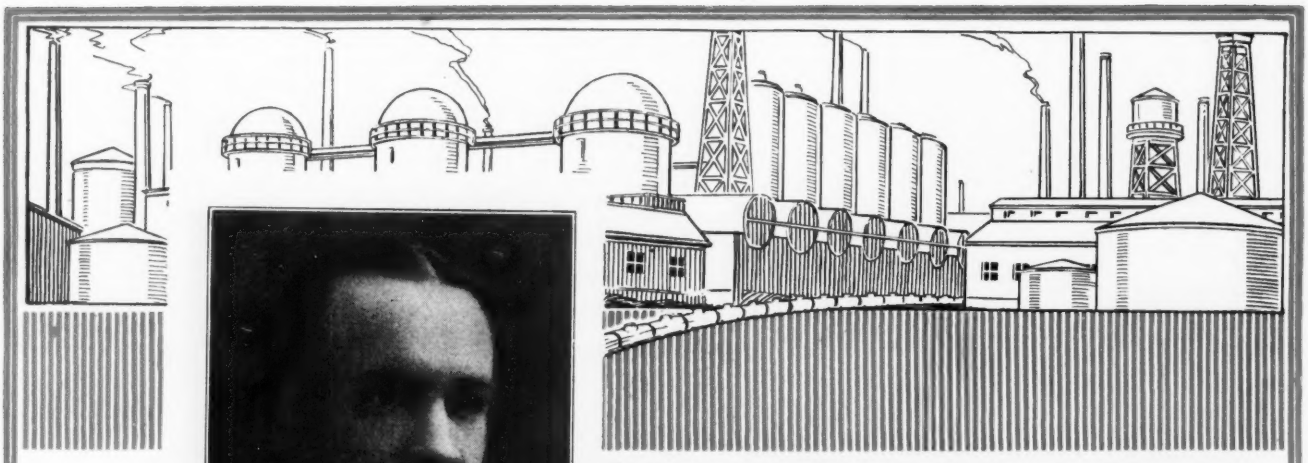
*General Office*—Oil City, Pa.

*District Offices at*
New York, Philadelphia, Boston, Chicago
London — Hamburg

*Cable Address—JASBER Oil City* *All Codes*



# HE KNOWS HIS "OILS!"

AND here's Fred Deering, our very efficient Superintendent. He's the boy with the eagle eye, who protects the reputation of Kanotex for high quality and uniformity.

Fred came to us right from High School, and has spent his entire business life with this one company. The only break in his service with us came when he spent a half year at Kansas University and two years at Annapolis.

The best testimonial to Fred's ability is the splendid line of petroleum products which go out under the Kanotex name, and produced under his supervision. These are

64-66 390 E. P. 64-66 375 E. P.

60-62 400 E. P.

42-44 Special Incubator Kerosene

28-32 Re-Cycle Gas Oil, having a flash of 180 or under; Cold Test, Zero to 10 above, making an ideal product for furnace purposes.

***There's just one best way to learn how much it means to a distributor of gasoline, to be known as a member of the Happy Kanotex Family. That's to phone or wire us your order for a trial car. Then let the merchandise do the rest. It's sure to help your cash register bell play a merrier tune. Send it today, and we'll both make more money.***

## THE KANOTEX REFINING CO.

ARKANSAS CITY, KANSAS

***Phone L. D. 4***

| | | |
|---|---|---|
| Gas Co. | 150,112,701 | 150,962,163 |
| Vacuum Oil Co. | 144,526,874 | 131,170,684 |
| Ohio Oil Co. | 100,494,884 | 101,312,432 |
| Continental Oil Co. | 77,179,226 | 71,884,989 |
| Mid-Continent Petroleum | 81,544,686 | 80,325,159 |
| Borne-Scrymser Co. | 1,543,244 | 1,568,938 |
| Chesebrough Mfg. Co. | 4,318,977 | 4,126,671 |
| Crystal Oil Ref'g. Co. | 3,288,157 | 3,965,597 |
| Galena Signal Oil Co. | 26,840,104 | 30,227,383 |
| General Asphalt Co. | 45,273,162 | 44,199,445 |
| Indian Refining Co. | 19,292,634 | 16,888,633 |
| Maracaibo Oil Exploration | 4,233,608 | 4,162,337 |
| Mexican Seaboard Oil | 8,025,875 | 10,010,039 |
| Mountain & Gulf Oil Co. | 9,386,255 | 9,834,293 |
| Pan American Western | 43,249,999 | 49,322,801 |
| Louisiana Oil Ref'g. | 15,331,666 | 16,020,240 |
| Panhandle P. & R. Co. | 5,727,864 | 5,999,118 |
| Pennok Oil Corp. | 651,402 | 1,324,273 |
| Pierce Petroleum Corp. | 19,573,663 | 19,862,385 |
| Producers & Refiners Corp. | 40,030,817 | 43,787,441 |
| Shaffer Oil & Ref'g. Co. | 39,473,105 | 33,117,326 |
| South Penn Oil Co. | 46,122,521 | 45,994,746 |
| Superior Oil Corp. | 5,082,371 | 5,768,930 |
| Texas Pacific C. & O. Co. | 20,399,771 | 19,648,300 |
| Union Tank Line Co. | 46,282,052 | 46,188,093 |
| Mountain Producers | 33,448,541 | 37,268,948 |
| Salt Creek Producers | 37,000,168 | 41,227,566 |
| Salt Creek Consolidated | 15,321,147 | 16,435,340 |
| *33 Other companies | 3,144,539,490 | 2,973,815,101 |
| Total 68 companies | $7,242,601,927 | $7,086,849,584 |

*See NATIONAL PETROLEUM NEWS, April 25, 1928, Page 56.
‡March 31, 1928.
‡March 31, 1927.

oil last year. Its trunk line system transported 4,508,000 barrels of crude and 1,318,000 barrels was moved by rail.

The refineries ran 5,837,930 barrels of crude from which was produced 1,425,129 barrels of gasoline. In 1926 the company ran 7,051,051 barrels of crude and produced only 1,213,442 barrels of gasoline.

The company expanded its marketing facilities, particularly in Ohio where it increased its gallonage 50 per cent. Marketing facilities at the end of 1927 and 1926 compare:

| | 1927 | 1926 |
|---|---|---|
| Bulk stations | 67 | 57 |
| Filling stations | 328 | 187 |
| Loaned pumps | 3,024 | 1,714 |

It distributed through its own bulk or service stations 53.36 per cent of the gasoline it produced, Richard B. Kahle, president, told stockholders. Its total sales the last two years compare:

| | 1927 | 1926 |
|---|---|---|
| Gasoline, gals. | 68,503,000 | 50,680,000 |
| Kerosene, gals. | 5,605,000 | 5,009,000 |
| Gas oil, gals. | 25,248,000 | 52,036,000 |
| Fuel oil, gals. | 129,364,000 | 132,658,000 |
| Asphalt, gals. | 4,577,000 | 4,975,000 |
| Motor oils, gals. | 1,270,000 | 918,000 |
| Industrial oils, gals. | 527,000 | 521,000 |
| Grease, Misc., lbs. | 1,413,000 | 715,000 |

It sold its interest in the Beacon Oil Co. and sold its tank cars to the Union Tank Car Co., using the proceeds to retire all bank and funded indebtedness. It entered a contract

(*Continued on Page 93*)


# Solves Your Problems

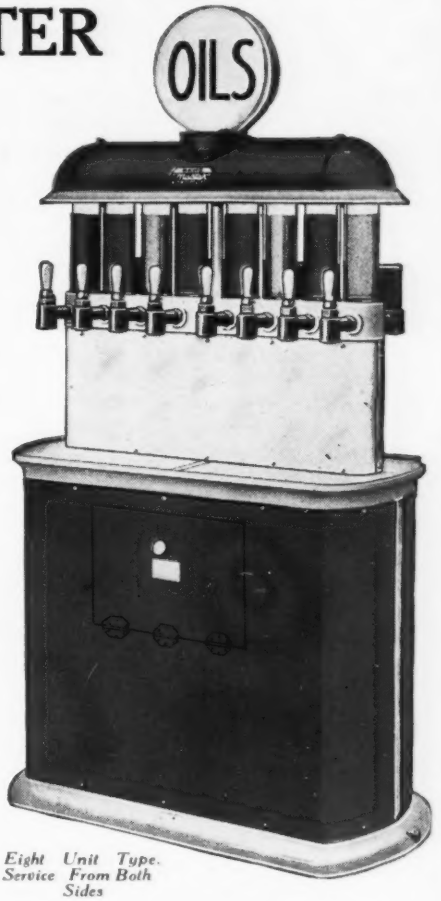
Are you satisfied with your oil sales gallonage in ratio to your gas

Is your station equipped to give the service that attracts, sells and *holds* customers in increasing numbers

?

***You eliminate waste, and increase efficiency in serving your trade, by using the***

## DAVIS MASTER Silent Oil Fountain




*Eight Unit Type. Service From Both Sides*

### *It solves your problems*

It sells *Confidence* and makes the casual passing motorist a steady customer. For he *knows* there is no substitution. With the DAVIS the customer *sees* the properly labeled oil dispensed in front of him.

8 and 4-unit types supplied from buried storage.

### Davis Self-Contained Fountain

Everything built in. Installed in 5 to 6 hours time. No excavation of concrete. Two 24-gallon and two 12-gallon tanks and two heaters in base of fountain.

*Write for full particulars and prices*

**The Davis & Gant Manufacturing Co.**
**1604 Broadway, Denver, Colo.**

# GRANBERG PETROLEUM METERS

***Are Precision Instruments of Established Merit***

They are extensively used on Tank Trucks, Truck Loading Racks and Tank Car Unloading Lines and are universally satisfactory wherever it is desirable to secure accurate measurements.

We have made a technical and practical study of the problem of accurately measuring petroleum oils and are prepared to give expert advice and assistance on the subject.

Engineers from our home office are permanently located in the Middle West and on the Atlantic Coast, for the purpose of helping our customers with their metering problems.

It will pay you to use our meters and profit by our knowledge and experience.

**GRANBERG METER CORPORATION**
*"Precision Meters for Petroleum Oils"*
**79 New Montgomery St. San Francisco, Calif.**

# Get extra results in the battle for new business by selling

# OPALINE .. the extra service Motor Oil .....

REG. U.S. PAT OFF.

Giving a motorist something *EXTRA* wins his patronage and keeps it. If you are an Authorized Opaline Dealer you *DO* give a motorist something *extra*—you give him, in Opaline, not only the right quality of motor oil, but you give him the right *grade*. You give him the grade which fits the degree of wear in his engine and seals the pistons to *prevent power from blowing by!* That's the *extra* service a motorist gets from Opaline—an *extra* service he will appreciate getting from you. The Opaline method of applying motor oil is precise, successful—and exclusive with Authorized Opaline Dealers. May we tell you about it?

SINCLAIR REFINING COMPANY, INC.

*Also Makers of Sinclair Gasoline and H-C Gasoline*

45 NASSAU STREET, NEW YORK

Atlanta Boston Chicago Houston Kansas City

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# Refinery - Tank Wagon Markets

National Petroleum News

# Light Oil Prices Continue to Advance In Mid-Continent Market

Staff Special.
TULSA, Aug. 4

ADVANCES in tank wagon and service station prices for gasolines through the Middle West and Southwest, with the Standard Oil Co. of Indiana setting the pace Aug. 1, entrenched the Mid-Continent light oil market in the strong position it has occupied for the past three or four months.

All grades of refined gasolines advanced 0.25 to 0.75 cent a gallon during the week ended Aug. 4. Domestic buying continued at a brisk clip despite the unsettled conditions caused by crude oil advances the last week of July and the tank wagon readjustments the week following.

Exporters continued to inquire for goods but their offers were below the refiners' ideas of prices for new business.

Natural gasoline prices advanced almost a full cent, with buying comparatively brisk around Aug. 1, and goods for spot shipment scarce. Considerable buying for over the month also was reported.

Kerosene prices advanced 0.25 to 0.50 cent a gallon following kerosene tank wagon advances. Demand also improved.

Gas oil and distillates were quiet in demand with prices steady.

Fuel oil prices were generally unchanged but demand was reported considerably better, from many quarters.

### Gasolines

FOLLOWING the tank wagon and service station price advances, the refinery price of 58-60 U. S. Motor in Oklahoma moved above an average of 9 cents a gallon for the first time since January, 1927.

Since July 28 the weighted average price of U. S. Motor in Oklahoma has advanced from 8.8702 cents to 9.4351 cents a gallon on Aug. 3. This is an advance of 0.5649 cent a gallon. Other grades of gasolines also advanced accordingly.

A majority of refiners in the Mid-Continent adjusted their gasoline prices soon after they recovered from the surprise of the crude oil advances July 26, and anticipated the tank wagon changes in sending out their new price lists. The tank wagon changes, therefore, had little immediate effect on the gasoline market.

The advances made in gasoline prices since Aug. 1 probably can be attributed as much to the continued heavy demand from the domestic trade as to any after-effects of higher tank wagon prices.

Several refiners late in the week were so far behind with shipments that they were having to prorate their gasoline to their regular customers and were offering no goods of any grade on the spot market. Other refiners reported they were receiving inquiries for all grades of gasolines, and in many instances with the jobber it was not a question of price or grade but of how soon shipment could be made.

While the exporters bought no gasolines during the week, the north Texas refiners were still busy on orders placed prior to the crude and tank wagon advances, and were showing but little interest in the spot market. These refiners are reported to have enough business already on their books to keep them busy until well after the middle of the month.

### Kerosenes

A decided increase in demand for kerosenes was noted late in the week. The advance of 1 cent a gallon in tank wagon price by the Standard Oil Co. of Indiana resulted in refiners advancing refinery price approximately 0.50 cent a gallon. Buying continued unabated, however, and at the close of business Aug. 4 two or three refiners announced they had sent out higher quotations which would be effective Aug. 6. Two or three other Oklahoma refiners were known to be buying kerosenes on the outside, while at least two others announced they were completely out of the market.

Kerosenes were scarce in Texas and the price was well in line with that prevailing in Oklahoma. One refiner reported a sale of 41-43 w.w. kerosene in north Texas Aug. 3 at 5.625 cents a gallon. Arkansas and Louisiana refiners also are hard pressed to fill kerosene orders.

While kerosene stocks for the Mid-Continent as a whole are approximately 2,000,000 gallons higher than at this time last year, this difference is due entirely to the larger stocks held by Kansas refiners. In every other area of the Mid-Continent, kerosene stocks are lower than they were a year ago.

### Natural Gasolines

Natural gasolines continued in active demand, with goods comparatively scarce. At least two large manufacturers the past week were in the market to obtain goods to fill out their own orders. Considerable buying has been reported for over the month delivery, while several sales for spot shipment have been made.

Prices advanced from an average of 9.5625 cents July 28 to 10.4175 cents Aug. 4, with all grades the same.

A few manufacturers reported they had not received so far the same amount of natural gasoline orders from refiners as they had on their books for July. They take this as an indication that refiners are planning to reduce their consumption of naturals as much as possible, since their prices have moved well above those for 58-60 U. S. Motor.

Manufacturers report almost without exception, however, that their storage is low, and the consensus of opinion is that, if refiners do not curtail their buying of naturals too drastically, the market will continue to show strength through the entire month.

### Gas, Oils and Distillates

Distillate demand continued to show improvement in Kansas, but very little change was noted in Oklahoma. Prices were unchanged in all areas.

# Refinery Markets on Light Oils and Lubricants

Prices given below are in cents per gallon, F. O. B. refinery, except where $ is shown

*(These Refinery Prices compiled in the OIL PRICE HANDBOOK for a whole year)*

## GASOLINE AND NAPHTHA

| PENNSYLVANIA | Prices Aug. 6 | Prices July 30 | Prices July 23 |
|---|---|---|---|
| 52-54 Napthha | 10.25 –10.75 | 10.25 –10.75 | 10.00 –10.25 |
| 54-56 Naphtha | 10.25 –10.75 | 10.25 –10.75 | 10.00 –10.375 |
| 58-60 U.S. Motor 437 e.p. | 11.00 –11.25 | 10.75 –11.25 | 10.50 –11.00 |
| 60-62 400-410 e.p. gasoline | 11.50 –12.00 | 11.00 –12.00 | 11.00 –11.25 |
| 64-66 390 e.p. gasoline | 11.75 –12.50 | 11.75 –12.00 | 11.50 –11.75 |
| 68-70 Str-run gas. 350-360 e.p. | 12.50 –13.00 | 12.00 –13.00 | 11.75 –12.50 |
| **‡OHIO** | | | |
| 58-60 U.S.Motor,delivered in Ohio, tax to be added | 12.75 | 12.00 | 11.75 |
| ‡Quotation of S. O. Ohio. | | | |
| **OKLAHOMA** | | | |
| 48-50 540 e.p. naphtha | †8.50 – 8.75 | †8.25 – 8.50 | †8.00 |
| 50-52 450 e.p. naphtha | †8.50 – 8.75 | †8.25 – 8.50 | †8.00 |
| 56-58 450 e.p. gasoline | 9.00 | 8.375– 8.625 | 8.125– 8.375 |
| 58-60 450 e.p. gasoline | 9.00 – 9.25 | 8.625 | 8.25 – 8.50 |
| 64-66 390 e.p. gasoline | 10.25 | 9.75 – 9.875 | 9.00 – 9.125 |
| 68-70 350-360 e.p. gasoline | 10.75 –11.00 | 10.25 –10.50 | 9.25 – 9.75 |
| **OKLAHOMA (Weighted Average Prices)** | | | |
| 58-60 U.S. Motor, 437 e.p. | 9.4692 | 9.0250 | 8.6191 |
| 60-62 437 e.p. gasoline | 9.7500 | 9.1250 | 8.7250 |
| 60-62 400 e.p. gasoline | 10.0000 | 9.5000 | 8.9750 |
| 64-66 375 e.p. gasoline | 10.7500 | 9.9375 | 9.1667 |

Above are weighted average prices, current week's prices being effective on Saturday, instead of Monday, the last day on which weighted averages are available for publication in this table. Weighted average prices for the current Monday are published on page 19 of this issue. The two previous weeks' prices shown are corrected to show Monday's prices, effective on the dates shown at the top of the columns.

| | | | |
|---|---|---|---|
| **KANSAS** (F. O. B. refinery Kansas destination) | | | |
| 58-60 U.S. Motor 437 e.p. | 9.625– 9.75 | 9.25 | 8.625– 8.75 |
| 60-62 400 e.p. gasoline | 10.00 –10.25 | 9.75 | 9.00 – 9.25 |
| 64-66 375 e.p. gasoline | 10.50 | 10.25 | 9.25 – 9.50 |
| **NORTH TEXAS** | | | |
| 48-52 450 e.p. naphtha | †8.75 – 9.00 | †8.00 | †7.50 – 7.75 |
| 56-58 450 e.p. gasoline | †9.00 | †8.50 | †7.75 – 8.00 |
| 58-60 450 e.p. gasoline | †9.00 – 9.25 | †8.50 – 8.75 | †8.00 – 8.25 |
| 58-60 U.S. Motor 437 e.p. | 9.625– 9.75 | 9.25 | 8.625 |
| 60-62 400 e.p. gasoline | 10.00 | 9.50 | 9.00 |
| 64-66 390 e.p. gasoline | 10.25 | 9.75 | 9.25 – 9.50 |
| 64-66 375 e.p. gasoline | 10.50 –10.75 | 10.25 –10.375 | 9.75 |
| 68-70 350-360 e.p. gasoline | 10.75 –11.00 | 10.50 –10.75 | 9.50 |
| **NORTH LOUISIANA** (N. La., Ark. and Miss. destination) | | | |
| 58-60 U.S. Motor gasoline | 10.00 | 9.50 | 9.25 |
| **ARKANSAS** (Arkansas destination only) | | | |
| 56-58 450 e.p. gasoline | 9.00 | 8.50 | 8.25 – 8.50 |
| 58-60 450 e.p. gasoline | 9.25 | 8.75 | 8.50 – 8.75 |
| 58-60 U.S. Motor 437 e.p. | 10.00 | 9.375– 9.50 | 9.25 |
| **‡CALIFORNIA** | | | |
| 54-58 U.S. Motor 437 e.p. | 9.00 –12.50 | 9.00 –12.50 | 9.00 –12.00 |
| 58-61 U.S. Motor 437 e.p. | 9.50 –13.50 | 9.50 –13.50 | 9.50 –13.00 |
| 42-45 Eng. dis. 445-480 e.p. | 7.00 – 8.00 | 7.00 – 8.00 | ..... |

‡3c tax to be added to alifornia gasoline prices if used in state

## NATURAL GASOLINE

(Note: End point of all grades, not over 375 F. Corrosion test adopted Oct. 1, 1927; A.S.T.M. Method D130-27T; doctor test, July 2, 1928.)

| | | | |
|---|---|---|---|
| **OKLAHOMA** | | | |
| Grade AA, 80-87.9, 90% Recovery | 10.375–10.50 | 9.75 | ‡9.50 |
| Grade A, 72-79.9, 90% Recovery | 10.375–10.50 | 9.75 | ‡9.50 |
| Grade BB, 84-92, 85% Recovery | 10.375–10.50 | 9.75 | ‡9.50 |
| Grade B, 76-83.9, 85% Recovery | 10.375–10.50 | 9.75 | ‡9.50 |
| Grade C, 80-92, 78% Recovery | 10.375–10.50 | 9.75 | ‡9.50 |
| **NORTH TEXAS** (F. O. B. Breckenridge) | | | |
| Grade AA, 80-87.9, 90% Recovery | 10.375–10.50 | 9.75 | ‡9.50 |
| Grade A, 72-79.9, 90% Recovery | 10.375–10.50 | 9.75 | ‡9.50 |
| Grade BB, 84-92, 85% Recovery | 10.375–10.50 | 9.75 | ‡9.50 |
| Grade B, 76-83.9, 85% Recovery | 10.375–10.50 | 9.75 | ‡9.50 |
| Grade C, 80-92, 78% Recovery | 10.375–10.50 | 9.75 | ‡9.50 |

‡All grades naturals represent quotations and offers to buy.

| | | | |
|---|---|---|---|
| **NORTH LOUISIANA** (F. O. B. Monroe District) | | | |
| Grade AA | †10.75 –11.00 | †10.00 –10.25 | †10.00 |
| Grade BB | †10.75 –11.00 | †10.00 –10.25 | †10.00 |
| Grade C | †10.75 –11.00 | †10.00 –10.25 | †10.00 |
| **CALIFORNIA** | | | |
| 75-85, 375-390 e.p. blend | 6.50 – 7.00 | 6.00 – 7.00 | 6.00 – 7.00 |

## MOTOR FUEL BLENDS

| | | | |
|---|---|---|---|
| **OKLAHOMA** | | | |
| 64-66 Blend 437 e.p. | †9.00 | †8.75 | †8.50 |

## BURNING OILS

| PENNSYLVANIA | | | |
|---|---|---|---|
| 45 w.w. kerosene | 6.00 – 6.25 | 6.00 – 6.625 | 6.00 – 6.50 |
| 46 w.w. kerosene | 6.50 – 7.00 | 6.50 – 7.00 | 6.50 – 7.00 |
| 47 w.w. kerosene | 6.75 – 7.25 | 6.75 – 7.25 | 6.75 – 7.25 |
| 300 mineral seal | 7.25 – 7.75 | 7.25 – 7.75 | 7.25 – 7.75 |

†Prices nominal ††Only one refiner quoting *Quotations only

| OKLAHOMA | Prices Aug. 6 | Prices July 30 | Prices July 23 |
|---|---|---|---|
| 41-43 w.w. kerosene | 5.50 – 5.75 | 5.25 – 5.50 | 4.75 – 5.00 |
| 42-44 w.w. kerosene | 6.00 – 6.25 | 5.75 – 5.875 | 5.25 – 5.50 |
| **KANSAS** (F. O. B. refinery Kansas destination) | | | |
| 41-43 w.w. kerosene | 5.75 – 6.00 | 5.50 – 5.625 | 5.25 |
| 42-44 w.w. kerosene | 6.25 – 6.50 | 5.75 – 6.00 | 5.50 |
| **NORTH TEXAS** | | | |
| 40-42 w.w. kerosene | 5.125 | 4.75 | 4.375– 4.50 |
| 41-43 w.w. kerosene | 5.50 – 5.625 | 5.00 | 4.625– 4.75 |
| **NORTH LOUISIANA** (N. La. Ark. and Miss. destination) | | | |
| 41-43 w.w. kerosene | 5.75 – 6.00 | 5.50 | 5.25 |
| **ARKANSAS** (Arkansas destination only) | | | |
| 42-44 kerosene | 5.75 – 6.00 | 5.50 – 5.75 | 5.25 |
| **CALIFORNIA** | | | |
| 38-40 w.w. kerosene | 5.50 – 6.00 | 5.50 – 6.00 | 5.50 – 6.00 |

## NEUTRAL OIL

| PENNSYLVANIA Vis. | | (Viscosity at 70°F.) | | |
|---|---|---|---|---|
| 200 No. 3 Assoc. Filt. | | 31.50 –33.00 | 31.50 –33.00 | 32.50 –33.00 |
| 180 No. 3 Assoc. Filt. | | 30.00 –31.50 | 30.00 –31.00 | 30.50 –31.00 |
| 150 No. 3 Assoc. Filt. | | 26.00 –27.00 | 26.00 –27.00 | 26.50 –27.50 |
| | | (Non Viscous) | | |
| 34 Grav. 330-340 Flash | | 7.50 – 9.00 | 7.50 – 9.00 | 7.50 – 9.00 |
| 36 Min. Neut. 300-305 Flash | | 6.50 – 7.50 | 7.75 – 8.00 | 7.75 – 8.00 |
| **OKLAHOMA | | | | |
| Vis. | Color | (Viscosity at 100°F.) | | |
| 100 | No. 2 | 6.00 – 6.50 | 6.00 – 6.50 | 6.00 – 6.50 |
| 150 | No. 3 | 8.00 – 8.50 | 8.00 – 8.50 | 8.00 – 8.50 |
| 150 | No. 4 | 8.00 – 8.50 | 8.00 – 8.50 | 8.00 – 8.50 |
| 180 | No. 3 | 9.00 –10.00 | 9.00 –10.00 | 9.00 –10.00 |
| 180 | No. 4 | 9.50 – 9.75 | 9.50 – 9.75 | 9.50 – 9.75 |
| 180 | No. 5 | 9.25 – 9.75 | 9.25 – 9.75 | 9.25 – 9.75 |
| 200 | No. 3 | 9.625–11.00 | 9.625–11.00 | 9.625–11.00 |
| 200 | No. 4 | 9.50 –10.75 | 9.50 –10.75 | 9.50 –10.75 |
| 200 | No. 5 | 8.50 –10.00 | 8.50 –10.00 | 8.50 –10.00 |
| 220 | No. 3 | 12.50 –13.50 | 12.50 –13.50 | 12.50 –13.50 |
| 220 | No. 4 | 12.25 –12.50 | 12.25 –12.50 | 12.25 –12.50 |
| 220 | No. 5 | 11.50 –12.00 | 11.50 –12.00 | 11.50 –12.00 |
| 240 | No. 3 | 13.50 –14.00 | 13.50 –14.00 | 13.50 –14.00 |
| 240 | No. 4 | 13.25 –13.50 | 13.25 –13.50 | 13.25 –13.50 |
| 240 | No. 5 | 12.00 –13.00 | 12.00 –13.00 | 12.00 –13.00 |
| 280 | No. 3 | 15.50 –16.50 | 15.50 –16.50 | 15.50 –16.50 |
| 280 | No. 4 | 15.25 | 15.25 | 15.25 |
| 280 | No. 5 | 14.00 –15.00 | 14.00 –15.00 | 14.00 –15.00 |
| 300 | No. 5-6 | 17.00 | 17.00 | 17.00 |
| **GULF COASTAL** | | | | |
| Vis. | Color | (Viscosity at 100°F., pour test 0) | | |
| 100 | No. 2 Unfilt. Pale | 7.25 – 7.50 | 7.00 – 7.50 | 7.00 – 7.50 |
| 200 | No. 3 Unfilt. Pale | 10.50 –10.75 | 10.25 –10.75 | 10.25 –10.75 |
| 300 | No. 3 Unfilt. Pale | 11.50 –11.75 | 11.25 –11.75 | 11.25 –11.75 |
| 500 | No. 3½ Unfilt. Pale | 13.50 –13.75 | 13.25 –13.75 | 13.25 –13.75 |
| 750 | No. 4 Unfilt. Pale | 15.75 –16.00 | 15.50 –16.00 | 15.50 –16.00 |
| 200 | No. 5½ Red Oil | 8.50 – 8.75 | 8.25 – 8.75 | 8.25 – 8.75 |
| 300 | No. 5½ Red Oil | 9.50 – 9.75 | 9.25 – 9.75 | 9.25 – 9.75 |
| 500 | No. 6 Red Oil | 11.00 –11.25 | 10.75 –11.25 | 10.75 –11.25 |
| 750 | No. 6 Red Oil | 13.75 –14.00 | 13.50 –14.00 | 13.50 –14.00 |
| **CALIFORNIA** | | | | |
| Vis. | Color | (Viscosity at 100°F.) | | |
| 100 | No. 3 | 9.50 –10.00 | 9.50 –10.00 | 9.50 –10.00 |
| 200 | No. 3 | 11.50 –12.00 | 11.50 –12.00 | 11.50 –12.00 |
| 300 | No. 3 | 13.00 –13.50 | 13.00 –13.50 | 13.00 –13.50 |
| 450 | No. 3 | 15.50 –16.00 | 15.50 –16.00 | 15.50 –16.00 |
| 550 | No. 3 | 16.50 –17.00 | 16.50 –17.00 | 16.50 –17.00 |
| 600 | No. 3 | 17.00 –17.50 | 17.00 –17.50 | 17.00 –17.50 |
| 200 | No. 5 | 11.00 –11.50 | 11.00 –11.50 | 11.00 –11.50 |
| 300 | No. 5 | 12.00 –12.50 | 12.00 –12.50 | 12.00 –12.50 |
| 400 | No. 5 | 14.00 –14.50 | 14.00 –14.50 | 14.00 –14.50 |
| 500 | No. 5 | 15.00 –15.50 | 15.00 –15.50 | 15.00 –15.50 |
| 600 | No. 5 | 16.00 –16.50 | 16.00 –16.50 | 16.00 –16.50 |
| 700 | No. 7 | 18.00 –18.50 | 18.00 –18.50 | 18.00 –18.50 |

## CYLINDER STOCKS

| **OKLAHOMA | | | |
|---|---|---|---|
| 190-200 Vis.at 210° Brt.St. | 31.00 –32.00 | 31.00 –32.00 | 31.00 –32.00 |
| 150-160 Vis.at210° Brt.St. | 23.00 –25.00 | 22.00 –25.00 | 21.50 –24.00 |
| 600 E.St.140-150 Vis.-210° | 17.00 –18.00 | 17.00 –18.00 | 17.00 –18.00 |
| 600 St. Ref. Olive Green | 8.00 –10.00 | 8.00 –10.00 | 8.00 –10.00 |
| 600 St. Ref. Dark Green | 6.00 – 8.00 | 6.00 – 8.00 | 6.00 – 8.00 |
| Black Oil | 5.00 | 5.00 | 5.00 |
| **PENNSYLVANIA** | (1-inch Immersion Test) | | |
| 600 Steam Refined | 12.25 –13.50 | 12.25 –13.50 | 11.00 –13.50 |
| 650 Steam Refined | 14.50 –15.50 | 14.50 –15.50 | 13.00 –15.50 |
| 600 Flash | 17.50 –18.50 | 17.50 –18.50 | 17.50 –18.50 |
| 625 Flash | 26.00 –29.00 | 26.00 –29.00 | 27.00 –29.00 |
| 600 Warren E | 18.50 | 18.50 | 17.50 –18.50 |
| 600 Oil City E | 16.00 –17.50 | 16.00 –17.50 | 16.50 –17.50 |
| 600 D Filtered | 22.50 –24.50 | 22.50 –24.50 | 22.50 –23.50 |
| Cold Test Stock, 40-50 p. p., 140-150 vis. at 210° 540-550 flash, No.8color | 36.00 –36.50 | 36.00 –36.50 | 36.00 |
| 40-50 p.p., 140-150 vis. at 210°, 540-550 flash, No. 6-6½ color diluted | 34.00 –34.50 | 34.00 –34.50 | 34.00 |

(Note—Prices of total immersion test goods average 1 to 3 cents per gallon higher)

**Represents both sales and quotations

# Standard Lift Co. Memphis, Tennessee

## *announce 4 new types*

*Air or Oil (Electrically Driven)* *"Drive-on" or "Free-Wheel."*

***Write for full details and***

# New Reduced Prices!

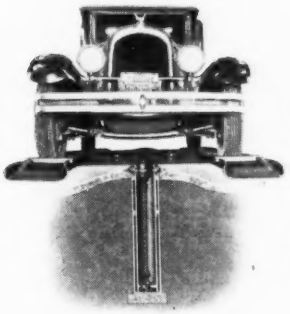
## Oildraulic Revolving Lift

ECONOMICAL in MORE WAYS THAN one

Trade Mark

### *"Drive-On" Oil Type*

**Shipping weight 1750 lbs.**



Flat Table

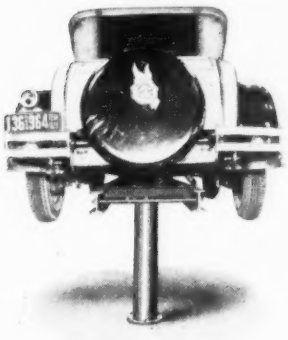
A space saver. No pits or underground piping — motor and pump inside the ram.

Oil safety lock. Foolproof—Automatic.

No air expense. The oil lasts indefinitely.

### *"Free-Wheel" Oil Type*

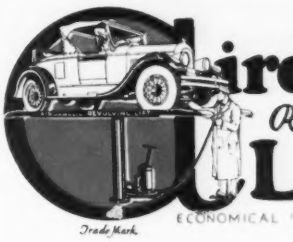
**Shipping Weight 1350 lbs.**



Same efficient, economical features as "Drive-on" Type.

Lifts by axles. Especially designed for repair shops.

***Cost less than 1/3 c per car to operate***



## Airdraulic Revolving Lift

ECONOMICAL in MORE WAYS THAN one

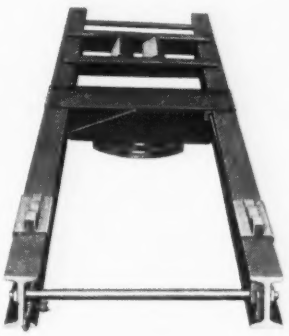
Trade Mark

### *"Free-Wheel" Air Type*

**Shipping Weight 1200 lbs.**

Movable axle steps.

No pits, no underground piping or valvehouses.



Dual lock—Oil safety automatic and air.

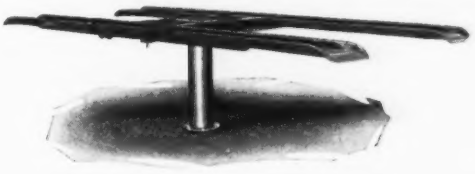
Adjustable cradle

Operated from tire service line.

The economical air lift.

### *"Drive-On" Air Type*

**Shipping Weight 1500 lbs.**



Air features same as "Free-Wheel" type above. No extra equipment. Same dual lock, both oil and air. Exclusive feature on oil lock is automatic operation. Service man does not have to stand at attention with foot on valve. Economical in list price, shipping weight, installation, cost and operating expense. Write for details to Standard Lift Co., Memphis, Tenn.

A few jobbers have been ordering out some distillates on contract for storage and summer fills, but the market was generally quiet.

Gas oils were in fair demand from both industrial users who sought both cracked and uncracked goods, and from a few refiners who have been buying straight reduced gas oil for cracking purposes. The prices in all areas were unchanged.

An export company early in the week was inquiring in north Texas for approximately 3,000,000 gallons of gas oil but prior to close of business Aug. 4 no sales had been reported.

**Fuel Oils**

Oklahoma and north Texas refiners reported a noticeable increase in demand for fuel oils after Aug. 1. Inquiries have been numerous for all grades and some heavy buying has been reported in various quarters. Much of the buying was for over the month shipment, although quite a few spot sales were reported in the course of the week.

Odd cars of low gravity fuel oils were reported moved at 52.5 cents a barrel, but the majority of refiners making these grades obtained 55 cents and up for their oil. Two or three refiners reported they had inquiries for goods to be shipped over the next 60 to 90 days, which would indicate the trade is of the opinion the bottom of the fuel oil market has been reached, in view of the higher crude oil prices in the Mid-Continent.

**Neutrals, Cylinders, Wax**

No changes have been made in quotations for neutral oils since the crude advances. A majority of refiners reported orders coming in well, and early in the week, had advanced their price for 150-160 vis. 210 bright stock to 25 cents a gallon. One or two refiners continued to accept a little business this week at 24 cents but indicated their prices would be higher within the next few days.

Wax quotations were mostly at 4.25 cents a pound. Several refiners reported they were completely sold up for August.

---

**Venezuelan Crude Quoted at 85 Cents**

NEW YORK, Aug. 4.—A nominal price of $0.85 a barrel was quoted for Venezuelan crude oil, f.o.b. deepwater, Lake Maracaibo region, by a few suppliers this week. Demand for spot cargoes of this oil continues slow. With a 16.5-cent tanker rate, laid down New York cost figures around $1.015, and at Boston, $1.035 per barrel.

# Eastern Domestic Market Firm As August Opens

Staff Special

NEW YORK, Aug. 4

EASTERN gasoline markets entered August with all the elements in their favor—excellent motoring weather, limited offerings of goods, highest prices of the year, and the prospects good for further price advances.

Although current markets experienced the usual lull which comes at the first of a new month, as far as spot buying was concerned, shipments on contracts continued at a high rate, and generally speaking a feeling of satisfaction was expressed by the selling trade.

Advancing tank wagon markets the country over have caused considerable speculation among the New York trade as to the probability of further increases in tank car markets. Eastern companies have assumed the leadership in advancing tank car markets in most instances this year, keeping about a jump ahead of markets in other sections of the country most of the time. In view of this, a 0.25-cent or a 0.5-cent advance would not be surprising, according to the views of a good many of the trade.

Fewer complaints from jobbers, with the exception of those in S. O. New Jersey territory, are being registered against the margin between tank car and tank wagon. Relief in this territory is expected momentarily, however, in view of the fact that tank wagon has been advanced in the majority of other Standard territories.

Predictions also ran high as to August consumption. The belief, of course, is general that the month will be a record breaker. With the unusually unfavorable motoring weather of last August still pretty well in mind, the trade can't help thinking that this year will show a far greater increase than has been anticipated, providing heat waves continue to cast their favor upon the industry. The eastern heat wave this week differed from those experienced in other sections of the country in that it continued from Wednesday unabated through the week end, its duration being about twice as long as it was elsewhere.

The activity of eastern buyers in the California market this week and last was a feature attracting considerable interest. A good portion of the buying was of a routine nature. On the other hand, more open market and spot buying was reported in the two weeks together than during any similar period this year.

One large California refiner, through its New York sales representative, figured most prominently in the activity. Deals involving 13 cargoes of U. S. Motor gasoline were reported closed by this company and 8.50 cents was the minimum price obtained. This compares with 8 cents paid for two previous cargoes. Freight rates, however, have been on the down scale with the result that the cost of each of the 15 cargoes figures, approximately the same, 10.25 cents, on a c.i.f. basis.

The first of the 13 cargoes starts for the east coast Aug. 10 with the rest spread over the balance of August and September. The goods, therefore, will figure prominently in the eastern market as late as the latter part of October. Tank car prices usually run 1-cent higher than the c.i.f. price. California U. S. Motor gasoline is currently selling at 11.25 cents in tank cars at New York, Philadelphia and Baltimore. One or two companies quote 11.50 cents but state their positions in the market are more or less nominal.

Spot demand for gasoline was slow this week, the majority of jobbers receiving goods purchased on contract basis over the first 10 to 15 days of August. U. S. Motor at New York harbor, the key market, remained unchanged at 11.25 cents, with prices at other points along the seaboard at the usual differentials.

The tendency of kerosene prices was upward although in the absence of active buying there was little or nothing on which to base actual going markets. Burning oils were quiet at unchanged prices.

## Small Stocks of Wax Keep Market Up

NEW YORK, Aug. 4.—The excellent statistical position of stocks in the United States as shown by Bureau of Mines figures for June served to further tighten wax markets at New York and New Orleans this week. Stocks of wax at refineries at the end of June, according to the bureau's figures, stood at 87,704,000 pounds which is approximately one-half of what the industry started the year with, and which is the lowest figure since Jan. 1, 1925, when 88,970,109 pounds were reported in storage.

A flurry in buying around the middle of this week was of short duration, but it quickly cleaned up the few small offerings made for August shipment. Prices, however, failed to show any further increases.

"The market," as one large dealer expressed it, "is purely a question of

suppliers. While we wouldn't ask, or expect to get, exorbitant prices, the question of price enters into the picture little or none."

White crude scale was quoted largely at 4.50 to 4.75 cents a pound at New York. It was doubtful if anything but an occasional small lot or so could be picked up at the lower figure. Fully refineds at New York remained at last week's high levels with goods extremely scarce.

At New Orleans, sellers were asking 4.375 to 4.625 cents for white scale. One dealer reported sales totaling 170 tons at 4.50 cents for shipment to the United Kingdom, which is considered a fair volume in the current market.

## New Construction Costs 619 Million Dollars

(*Continued from Page* 87)

with the Union Tank line to use the latter's car equipment for five years.

### *Mexican Seaboard Oil Co.*

Production in Mexico of this company's subsidiaries totaled 3,765,982 in 1927, compared with 7,148,552 barrels in 1926. Development work was carried on in Texas and California. Texas properties were sold in March, 1928.

### *Pennok Oil Corp.*

Net production in 1927 was 280,781 barrels which was sold at an average of $1.38 a barrel or 93 cents less a barrel than was received for crude in 1926. In spite of the lower prices the company retired its funded indebtedness.

### *Superior Oil Corp.*

Net production of Superior in 1927 was 1,480,266 barrels as against 746,470 barrels in 1926. The average price received in 1927 was only $1.537 but $2.515 a barrel in 1926.

### *Texas Pacific Coal and Oil Co.*

Oil and gas property account of this company increased almost $2,000,000 in 1927. Net crude production totaled 2,729,722 barrels, a gain of 308,307 barrels over 1926 production. During 1927 it drilled 84 wells of which 63 were oil, four gas and 17 dry. Net natural gasoline production averaged 17,324 gallons a day.

Its Fort Worth and Wynnewood refineries shipped 41,000,000 gallons of finished products. It built bulk plants in territory advantageous to its refineries.

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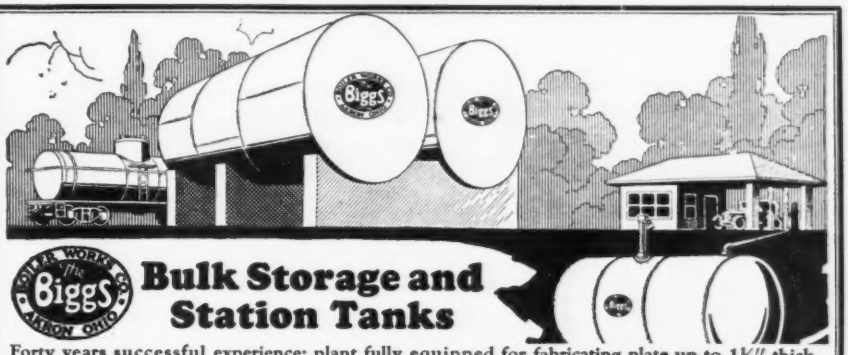
CLEVELAND, Aug. 4.—North Carolina motorists spent $46,885,000 for gasoline in the year ended June 30, it is stated in a news letter published by the University of North Carolina. This sum was exclusive of that spent for motor oils and greases.

The Biggs Boiler Works Co. Akron Ohio

**Bulk Storage and Station Tanks**

Forty years successful experience; plant fully equipped for fabricating plate up to 1½" thick.
Pressure Stills for Cracking Process - Fractionating Towers - Dephlegmating Towers, Bubble Towers - Heat Exchangers - Agitators - Steam Stills - Crude Stills - Condenser Boxes, Run Down Tanks - Blending Tanks - Hemispherical Tanks - Blow Cases - Acid Tanks, Compounding Kettles - Storage Tanks to 80,000 Barrels - Smoke Stacks and Breechings, etc.
THE BIGGS BOILER WORKS COMPANY, Buchtel and Bank Streets, AKRON, OHIO
*Eastern Sales Office:* 300 Madison Ave., New York *Western Sales Office:* 35 South Dearborn St., Chicago

**BETHLEHEM**
**WAX PLANT EQUIPMENT**

*Filter Presses* — *Wax Moulding Presses*
*Wax Distillate Chilling Machines* — *Scale Wax Cooling Drums*
*Wax Testing Presses* — *Paraffine Wax Sweater Plants*
*Complete Wax Plants designed and built*
*Pumps, Stills, Towers, Condensers and other Oil Refinery Equipment*
*Oil Burning Systems* — *Complete Power Plant Equipment*

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**CLEVELAND—753 Penton Bldg.**

# Refinery Markets on Wax and Heavy Oil Products

Prices given below are in cents per gallon, F. O. B. refinery, except where $ is shown

*(For quick reference to Refinery Prices, get the OIL PRICE HANDBOOK, published annually)*

## WAX

| PENNSYLVANIA | Prices Aug. 6 | Prices July 30 | Prices July 23 |
|---|---|---|---|
| Per pound, New York | | | |
| 122-124 white crude scale | 4.50 – 4.75 | 4.375– 4.75 | 4.375– 4.50 |
| 124-126 white crude scale | 4.50 – 4.75 | 4.50 – 4.75 | 4.50 |
| **OKLAHOMA** | | | |
| **124-126 White Crude Scale | 4.25 | 4.00 – 4.25 | 4.00 – 4.25 |
| **CALIFORNIA** | | | |
| White crude scale, per pound, ton lots | 6.00 – 6.50 | 6.00 – 6.50 | 6.00 – 6.50 |

## FUEL OIL

| PENNSYLVANIA | | | |
|---|---|---|---|
| 36-40 fuel oil | 4.75 – 5.00 | 4.75 – 5.125 | 4.625– 5.00 |
| 30-34 fuel oil | 4.25 – 4.50 | 4.25 – 4.75 | 4.25 – 4.50 |
| 28-32 fuel oil | 4.125– 4.50 | 4.125– 4.50 | 4.125– 4.50 |
| **OKLAHOMA** | | | |
| 38-40 straw distillate | 2.875– 3.00 | 2.875– 3.00 | 2.875– 3.00 |
| 36-38 straw distillate | 2.75 | 2.75 | 2.75 |
| 32-36 gas oil, straw | †2.50 – 2.75 | †2.50 – 2.75 | †2.50 – 2.75 |
| 32-36 dark gas oil | 2.375– 2.50 | 2.375– 2.50 | 2.375– 2.50 |
| 28-30 fuel oil (in bbls.) | $0.85 – 0.875 | $0.85 – 0.875 | $0.85 – 0.875 |
| 26-28 fuel oil (in bbls.) | $0.675– 0.725 | $0.675– 0.725 | $0.675– 0.725 |
| 24-26 fuel oil (in bbls.) | *$0.65 – 0.675 | *$0.65– 0.675 | **$0.65– 0.675 |
| 22-26 fuel oil (in bbls.) | *$0.575– 0.625 | *$0.575– 0.625 | **$0.575–0.625 |
| 18-22 fuel oil (in bbls.) | *$0.55 – 0.60 | *$0.55 – 0.60 | **$0.55– 0.60 |
| 16-18 fuel oil (in bbls.) | *$0.55 | *$0.55 | **$0.55 |
| 14-16 fuel oil (in bbls.) | *$0.55 | *$0.55 | **$0.55 |
| **KANSAS** (F. O. B. refinery Kansas destination.) | | | |
| 38-40 straw distillate | 3.50 | 3.25 – 3.50 | 3.25 – 3.50 |
| 36-38 straw distillate | 3.125 | 3.00 – 3.125 | 3.00 – 3.125 |
| 32-36 gas oil | 2.625– 2.75 | 2.625– 2.75 | 2.625– 2.75 |
| 24-26 fuel oil | *$0.75 – 0.80 | *$0.65 – 0.75 | *$0.65– 0.75 |
| 18-22 fuel oil | *$0.70 | *$0.60 – 0.65 | *$0.60– 0.65 |
| **NORTH TEXAS** | | | |
| 38-40 straw distillate | 2.75 – 3.00 | 2.75 – 3.00 | 2.75 – 3.00 |
| 32-36 gas oil, cracked | 2.25 – 2.375 | 2.25 – 2.375 | 2.25 – 2.375 |
| 32-36 gas oil, uncracked | 2.25 – 2.375 | 2.25 – 2.375 | 2.25 – 2.375 |
| 24-26 fuel oil (in bbls.) | $0.50 – 0.55 | $0.50 – 0.525 | $0.50 – 0.525 |

†Prices Nominal ††Only One Refiner Quoting *Quotations only

| GULF COASTAL | Prices Aug. 6 | Prices July 30 | Prices July 23 |
|---|---|---|---|
| Fuel (in bbls.) | $1.20 –$1.25 | $1.20 –$1.25 | $1.30 –$1.35 |
| Gas oil | 4.25 – 4.375 | 4.25 – 4.375 | 4.25 – 4.375 |
| **NORTH LOUISIANA** (N. La., Ark. and Miss. destination) | | | |
| 32-36 gas oil, dark | 2.625– 2.875 | 2.625– 2.875 | 2.625– 2.875 |
| 32-36 gas oil, straw | 2.75 – 3.00 | 2.75 – 3.00 | 2.75 – 3.00 |
| 16-20 fuel oil (in bbls.) | $0.70 | $0.65 – 0.70 | $0.65 – 0.70 |
| **ARKANSAS** (Arkansas destination only) | | | |
| 32-36 gas oil, straw | 3.00 – 3.25 | 3.00 – 3.25 | 3.00 – 3.25 |
| 32-36 gas oil | 2.75 – 3.00 | 2.75 – 3.00 | 2.75 – 3.00 |
| 28-32 gas oil | 2.75 | 2.75 | 2.75 |
| Road Oil | $1.15 | $1.15 | $1.15 |
| **CALIFORNIA** (F. O. B. San Joaquin Valley. At San Francisco, 4c per bbl. more) | | | |
| 14-18 fuel oil (in bbls.) | $0.65 –$0.70 | $0.65 –$0.70 | $0.65 –$0.75 |
| 14-18 Bunker oil (in bbls.) | $0.80 –$1.00 | $0.80 –$1.00 | $0.80 –$1.00 |
| 30-34 gas oil (in bbls.) | $1.00 –$1.20 | $1.00 –$1.20 | $1.00 –$1.20 |
| 27 Plus Diesel oil (in bbls.) | $0.90 –$1.00 | $0.90 –$1.00 | $0.90 –$1.00 |

## ‡PETROLATUMS

| PENNSYLVANIA (In barrels, carload lots, f.o.b. refinery. In tank cars ⅛c to ¾c per pound less.) | | | |
|---|---|---|---|
| Snow White | 8.25 – 8.50 | 8.25 – 8.50 | 8.25 – 8.50 |
| Lily White | 7.25 – 7.50 | 7.25 – 7.50 | 7.25 – 7.50 |
| Cream White | 6.25 – 6.50 | 6.25 – 6.50 | 6.25 – 6.50 |
| Light Amber | 3.50 | 3.50 | 3.50 |
| Amber | 3.25 | 3.25 | 3.25 |
| Red | 2.75 – 3.00 | 2.75 – 3.00 | 2.75 – 3.00 |

‡Only two refiners quoting petrolatums.

## PETROLEUM COKE

**OKLAHOMA

(Per ton in car lots)

| | | | |
|---|---|---|---|
| Lump | $4.50 – 5.00 | $4.50 – 5.00 | $4.50 – 5.00 |
| Still run | $2.75 – 3.00 | $2.75 – 3.00 | $2.75 – 3.00 |
| Breeze | $1.75 – 2.00 | $1.75 – 2.00 | $1.75 – 2.00 |

**Represents Both Sales and Quotations

## S. O. Ohio is on Air With Ohio Trip Series

CLEVELAND, Aug. 4.—Interesting Ohio points are being popularized by the Standard Oil Co. of Ohio through weekly radio programs. Thirteen places, all of which can be reached from Cleveland over the week end, are on the series. The programs are broadcast through WTAM, Cleveland, every Thursday evening from 9:30 to 10 p.m.

A trip to Cedar Point, at Sandusky, is the program for Aug. 9. The first program, that to the Blue Hole near Castalia, was on the air July 26. The Aug. 2 trip was to the caverns at Bellefontaine.

Standard Oil takes its listeners to these various places from Cleveland, explaining points of interest in the various cities en route. Explanations of these cities and of the interesting Ohio point are interspersed with appropriate music.

Howard Justice, tenor, and a Standard Oil field salesman, is a member of the cast.

A dignified radio program to interest Ohioans in week-end trips to interesting Ohio points is the purpose of the series, explained A. A. Stambaugh, director of public relations for Standard Oil. Reference is made at intervals to the quality of Standard Oil products for motorists. Mention is made of road maps available at all service stations.

## Penna. U.S. Motor Advances To 11 to 11¼ Cents

CLEVELAND, Aug. 4.—Pennsylvania U. S. Motor gasoline quotations advanced to 11 cents this week. This is the first time the market has been 11 cents and above since March 7, 1927, when it was 11 to 11.50 cents. U. S. Motor closed July at 10.75 to 11.25 cents and at the beginning of August advanced to 11 to 11.25 cents.

The advance got under way Monday with many refiners asking 11 cents. Balance of sellers had gone to 11 cents or above by Aug. 2. Higher gravity gasolines were up also, with wide quotation ranges.

Gasoline demand considering this is first part of month has been good all week, most refiners reported. Kerosene demand has been picking up many refiners report. Cylinder stocks continue in good demand. Bright stocks are scarce. Fuel oil and viscous neutral demand has been slow.

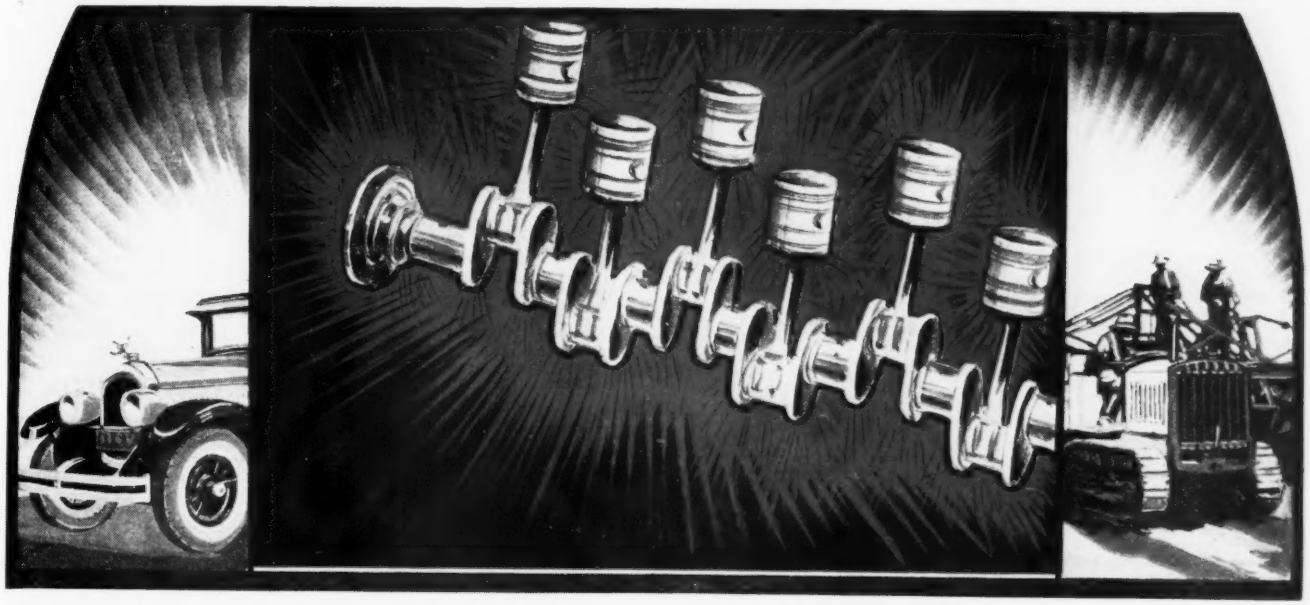
## Michigan Oil Men Move Office to Jackson

JACKSON, Mich., Aug. 3.—Michigan Independent Oil Men's association has moved its headquarters from Grand Rapids. The new address is 207 West Franklin street, Jackson, Mich. There H. H. Ragle, the active president, and Wayne C. Hughes, secretary, have the entire lower floor of a handsome old residence near the business district to house their office force and equipment.

Mr. Ragle says the residence is rented for about one-third what ample space would cost in an office building downtown. The space is sufficient to enable the association to hold good sized meetings without renting a hall. He also says that the absence of noise, interruption and parking restrictions make it much more desirable for an association office where people gather in rather large numbers to talk business.

"Jackson," Mr. Ragle says, "has the advantage of being near the geographical center of the state, on the main highways, on the Michigan Central and New York Central railroads, more accessible and a cheaper place to maintain an office than Grand Rapids."

# CHAMPLIN OILS



# WHERE INFERIOR OIL *Will Not Endure*

There's no exaggerating the Hades that greets a motor oil down in the crank case of the modern motor. Under the high operating temperatures and the rapid churning of the pistons, it takes the *best* to survive—while less than the best is soon reduced to a watery, valueless fluid.

CHAMPLIN Motor and Tractor Oils are the hardiest that modern refining science can produce. Refined from the Mid-Continent's finest paraffin-base crude, scientific treatment tempers these oils to withstand, unimpaired, the *highest* motor temperatures. By giving maximum service to the motorist, CHAMPLIN Oils build maximum trade for the jobber.

USE CHAMPLIN OILS

*"CHAMPLIN Oils have always been good—ALL WAYS"*

**CHAMPLIN REFINING COMPANY ~ *Enid, Okla.***

# Tank Wagon, Service Station Markets for Gasoline and Kerosene

***(OIL PRICE HANDBOOK has t.w. and s.s. markets for 1927, 1926, 1925, 1924 arranged for quick reference)***

These Prices in Effect Aug. 6, 1928, as Posted by Principal Marketing Companies

## S.O. NEW JERSEY TERRITORY

| | Gasoline | | | | Oil |
|---|---|---|---|---|---|
| | | | Total | | |
| | T.W. | Tax | T.W. | S.S. | T.W. |
| Atlantic City, N. J. | 16 | 2 | 18 | 20 | 14 |
| Newark, N. J. | 16 | 2 | 18 | 20 | 14 |
| Annapolis, Md | 17 | 4 | 21 | 23 | 14 |
| Baltimore, Md | 17 | 4 | 21 | 23 | 12 |
| Cumberland, Md | 17 | 4 | 21 | 23 | 14 |
| Washington, D. C. | 17 | 2 | 19 | 21 | 14 |
| Danville, Va | 17 | 5 | 22 | * | 14 |
| Norfolk, Va | 14 | 5 | 19 | 20 | 14 |
| Richmond, Va | 17 | 5 | 22 | 24 | 14 |
| Roanaoke, Va | 17 | 5 | 22 | 24 | 14 |
| Petersburg, Va | 17 | 5 | 22 | 24 | 14 |
| Charleston, W. Va | 17 | 4 | 21 | 23 | 14 |
| Keyser, W. Va | 17 | 4 | 21 | 23 | 14 |
| Parkersburg, W. Va | 17 | 4 | 21 | 23 | 14 |
| Wheeling, W. Va | 17 | 4 | 21 | 23 | 14 |
| Charlotte, N. C. | 17 | 4 | 21 | 23 | 14 |
| Hickory, N. C. | 17 | 4 | 21 | 23 | 14 |
| Mt. Airy, N. C. | 17 | 4 | 21 | 23 | 14 |
| Salisbury, N. C. | 17 | 4 | 21 | 23 | 14 |
| Charleston, S. C. | 17 | 4 | 21 | 23 | 14 |
| Columbia, S. C. | 17 | 5 | 22 | 24 | 14 |

*Dealers set own prices. S. O. New Jersey does not operate station.

## S. O. NEW YORK

Due to local price conditions at many points in S. O. New York territory, actual prices on both gasoline and kerosene are being made at under the posted tank wagon prices published below.

| | | | | | |
|---|---|---|---|---|---|
| New York City | 18 | 0 | 18 | *20 | 15 |
| Albany, N. Y. | 18 | 0 | 18 | 21 | 15 |
| Buffalo, N. Y. | 18 | 0 | 18 | 20 | 15 |
| Rochester, N. Y. | 18 | 0 | 18 | 20 | 13 |
| Syracuse, N. Y. | 18 | 0 | 18 | 20 | 15 |
| Boston, Mass. | 18 | 0 | 18 | 20 | 15 |
| Augusta, Me. | 18 | 4 | 22 | 24 | 15 |
| Manchester, N. H. | 18 | 4 | 22 | 24 | 15 |
| Burlington, Vt. | 18 | 3 | 21 | 23 | 15 |

*The Standard of New York does not operate stations in New York City. This figure is the retail price of a principal station operator selling Socony gasoline.

## ATLANTIC REFINING

| | | | | | |
|---|---|---|---|---|---|
| Pittsburgh, Pa. | 17 | * | 17 | *22 | 14 |
| Philadelphia, Pa. | 17 | * | 17 | *22 | 14 |
| Allentown, Pa. | 17 | * | 17 | *22 | 14 |
| Erie, Pa. | 17 | * | 17 | *22 | 14 |
| Scranton, Pa. | 17 | * | 17 | *22 | 14 |
| Altoona, Pa. | 17 | * | 17 | *22 | 14 |
| Dover, Del. | 17 | 3 | 20 | 22 | 14 |
| Wilmington, Del. | 17 | 3 | 20 | 22 | 14 |
| Providence, R. I. | 18 | 2 | 20 | 22 | 15 |
| Boston, Mass. | 18 | 0 | 18 | 20 | 15 |
| Springfield, Mass. | 18 | 0 | 18 | 20 | 15 |
| Worcester, Mass. | 18 | 0 | 18 | 20 | 15 |
| Hartford, Conn. | 18 | 2 | 20 | 22 | 14 |
| New Haven, Conn. | 18 | 2 | 20 | 22 | 15 |

*3-cent state tax is collected by retail dealer and paid by him directly to state.

## S. O. KENTUCKY

| | | | | | |
|---|---|---|---|---|---|
| Ashland, Ky. | 15 | 5 | 20 | 22 | 15.5 |
| Catlettsburg, Ky. | 15 | 5 | 20 | 22 | 15.5 |
| Lexington, Ky. | 14 | 5 | 19 | 21 | 15.5 |
| Louisville, Ky. | 14 | 5 | 19 | 21 | 14 |
| Covington, Ky. | 15 | 5 | 20 | 20 | 15.5 |
| Clarksdale, Miss. | 16 | 4 | 20 | 22 | 14.5 |
| Gulfport, Miss. | 17.5 | 4 | ††21.5 | 23.5 | 14 |
| Jackson, Miss. | 16 | 4 | 20 | 22 | 14.5 |
| Natchez, Miss. | 15.5 | 4 | 19.5 | 21.5 | 14 |
| Vicksburg, Miss. | 15.5 | 4 | 19.5 | 21.5 | 14 |
| Birmingham, Ala. | 18 | 4 | 22 | 24 | 16 |
| Mobile, Ala. | 18 | 4 | 22 | 24 | 15 |
| Montgomery, Ala.* | 19 | 4 | 23 | 25 | 16.5 |
| Atlanta, Ga. | 18 | 4 | 22 | 24 | †16.5 |
| Augusta, Ga. | 18 | 4 | 22 | 24 | †15.5 |
| Macon, Ga. | 18 | 4 | 22 | 24 | †16.5 |
| Savannah, Ga. | 17 | 4 | 21 | 21 | 14.5 |
| Jacksonville, Fla. | 17 | 5 | 22 | 24 | 13.5 |
| Miami, Fla. | 18 | 5 | 23 | 25 | 15.5 |
| Tampa, Fla. | 17 | 5 | 22 | 25 | 13.5 |
| Pensacola, Fla. | 18 | 5 | **23 | 25 | 13.5 |

*Local privilege tax of 1 cent on gasoline and ½ cent on kerosene at Montgomery included. Mobile gasoline prices include 1c city tax.

†Georgia kerosene prices include 1c state tax.

**Both tank wagon prices include 1c city tax at Pensacola, which went into effect Oct. 15, 1926.

††Both tank wagon prices at Gulfport include Harrison county privilege tax of 2c.

## S. O. INDIANA

| | Gasoline | | | | Oil |
|---|---|---|---|---|---|
| | | | Total | | |
| | T.W. | Tax | T.W. | S.S. | T.W. |
| Chicago, Ill. | 15 | 0 | 15 | 17 | 12 |
| Decatur, Ill. | 15.2 | 0 | 15.2 | 17.2 | 12.1 |
| E. St. Louis, Ill. | 14.1 | 0 | 14.1 | 16.35 | 11.2 |
| Joliet, Ill. | 15.4 | 0 | 15.4 | 17.4 | 12.3 |
| Peoria, Ill. | 15.2 | 0 | 15.2 | 17.2 | 12.1 |
| Quincy, Ill. | 15.2 | 0 | 15.2 | 17.2 | 11.9 |
| Indianapolis, Ind. | 15.2 | 3 | 18.2 | 20.2 | 13.2 |
| Evansville, Ind. | 15 | 3 | 18 | 20 | 13 |
| South Bend, Ind. | 15.4 | 3 | 18.4 | 20.4 | 13.4 |
| Detroit, Mich. | 15.8 | 3 | 18.8 | 20.8 | 13.7 |
| Grand Rapids, Mich. | 15.7 | 3 | 18.7 | 20.7 | 13.6 |
| Saginaw, Mich. | 15.9 | 3 | 18.9 | 20.9 | 13.8 |
| Green Bay, Wis. | 15.6 | 2 | 17.6 | 19.6 | 12.4 |
| Madison, Wis. | 15.3 | 2 | 17.3 | 19.3 | 12.1 |
| Milwaukee, Wis. | 15.1 | 2 | 17.1 | 19.1 | 11.9 |
| La Crosse, Wis. | 16.2 | 2 | 18.2 | 20.2 | 13 |
| Minneapolis, Minn. | 16.2 | 2 | 18.2 | 20.2 | 12.9 |
| Duluth, Minn. | 16.5 | 2 | 18.5 | 20.5 | 12.9 |
| Mankato, Minn. | 16.1 | 2 | 18.1 | 20.1 | 12.7 |
| Des Moines, Ia. | 15.5 | 3 | 18.5 | 20.5 | 12.3 |
| Davenport, Ia. | 15.5 | 3 | 18.5 | 20.5 | 12.3 |
| Sioux City, Ia. | 15.1 | 3 | 18.1 | 20.1 | 11.9 |
| Mason City, Ia. | 15.5 | 3 | 18.5 | 20.5 | 12.3 |
| St. Louis, Mo. | *14.6 | 2 | 16.6 | 18.9 | 11.3 |
| Kansas City, Mo. | †15.9 | 2 | 17.9 | 19.9 | 10.6 |
| St. Joseph, Mo. | †15.5 | 2 | 17.5 | 19.5 | 11.2 |
| Fargo, N. D. | 17.9 | 2 | 19.9 | 21.9 | 14.9 |
| Grand Forks, N. D. | 18.2 | 2 | 20.2 | 22.2 | 15.2 |
| Minot, N. D. | 17.9 | 2 | 19.9 | 21.9 | 14.9 |
| Pierre, S. D. | 16.5 | 4 | 20.5 | 22.5 | 13.9 |
| Huron, S. D. | 16.5 | 4 | 20.5 | 22.5 | 13.9 |
| Wichita, Kans. | 13.8 | 2 | 15.8 | 17.8 | 10.8 |
| Bartlesville, Okla. | 13.5 | 3 | 16.5 | 18.5 | 10.5 |

S. O. Indiana's quantity discount schedule on tank wagon deliveries of gasoline is ½c for 750 gals. or more a month; 1c for 2,000 gals. or more a month; 1½c for 6,000 gals. or more a month; 2c for 10,000 gals. or more a month, and 3c for 15,000 gals. or more a month.

Service station discount is 2c per gal. to consumers of 200 gals. or more a month. All discounts adjusted annually.

*Includes city tax of ½c.

†Includes city tax of 1c.

## CONTINENTAL OIL

| | | | | | |
|---|---|---|---|---|---|
| Denver, Colo. | 16 | 3 | 19 | 22 | 14.5 |
| Pueblo, Colo. | 16 | 3 | 19 | 22 | 14.5 |
| Grand Junc., Colo. | 19.5 | 3 | 22.5 | 25.5 | 18 |
| Casper, Wyo. | 16 | 3 | 19 | 22 | 13 |
| Cheyenne, Wyo. | 17 | 3 | 20 | 23 | 14.5 |
| Butte, Mont. | 20.5 | 3 | 23.5 | 26.5 | 19 |
| Helena, Mont. | 20.5 | 3 | 23.5 | 26.5 | 19 |
| Salt Lake City, Utah | 17.5 | 3½ | 21 | 24 | 17 |
| Boise, Ida. | 19.5 | 4 | 23.5 | 26.5 | 19 |
| Twin Falls, Ida. | 19.5 | 4 | 23.5 | 26.5 | 19 |
| Albuquerque, N. M. | 15 | 5 | 20 | 23 | 17 |

## S. O. CALIFORNIA

| | | | | | |
|---|---|---|---|---|---|
| Phoenix, Ariz. | 12 | 4 | 16 | 20 | 21.5 |
| Los Angeles, Cal. | 13.5 | 3 | 16.5 | 20.5 | 15.5 |
| Fresno, Cal. | 14 | 3 | 17 | 21 | 16.5 |
| San Francisco, Cal. | 14 | 3 | 17 | 21 | 15.5 |
| Reno, Nev. | 18 | 4 | 22 | 26 | 19 |
| Portland, Ore. | 14.5 | 3 | 17.5 | 21.5 | 16.5 |
| Seattle, Wash. | 14.5 | 2 | 16.5 | 20.5 | 16.5 |
| Spokane, Wash. | 18.5 | 2 | 20.5 | 24.5 | 20.5 |
| Tacoma, Wash. | 14.5 | 2 | 16.5 | 20.5 | 16.5 |

## S. O. LOUISIANA

| | | | | | |
|---|---|---|---|---|---|
| Little Rock, Ark. | 16 | 2 | 21 | 23 | 12 |
| Alexandria, La. | 15 | 2 | 17 | 19 | †14 |
| Baton Rouge, La. | 14 | 2 | 16 | 18 | †12.5 |
| Lake Charles, La. | 15.5 | 2 | 17.5 | 19.5 | †14 |
| New Orleans, La. | *15.5 | 2 | *17.5 | *19.5 | †14 |
| Shreveport, La. | 15.5 | 2 | 17.5 | 19.5 | †13 |
| Lafayette, La. | 15 | 2 | 17 | 19 | †13.5 |
| Bristol, Tenn. | 18 | 3 | 21 | 23 | 14 |
| Chattanooga, Tenn. | 17.5 | 3 | 20.5 | 22.5 | 15 |
| Knoxville, Tenn. | 18 | 3 | 21 | 23 | 15 |
| Nashville, Tenn. | 17 | 3 | 20 | 22 | 15 |
| Memphis, Tenn. | 14 | 3 | 17 | 19 | 14 |

*New Orleans gasoline prices include 1c parish tax in addition to 2c state tax, and kerosene prices include 1c state tax and 1c parish tax.

†Kerosene price in Louisiana includes 1c state tax.

## S. O. OHIO

| | Gasoline | | | | Oil |
|---|---|---|---|---|---|
| | | | Total | | |
| | T.W. | Tax | T.W. | S.S. | T.W. |
| All Ohio points | 15 | 3 | 18 | 19 | 14 |

## S. O. NEBRASKA

| | | | | | |
|---|---|---|---|---|---|
| Omaha, Neb. | 15.25 | 2 | 17.25 | 19.25 | 12.25 |
| McCook | 16.75 | 2 | 18.75 | 20.75 | 13.75 |
| Norfolk | 15.75 | 2 | 17.75 | 19.75 | 12.75 |
| North Platte | 16.75 | 2 | 18.75 | 20.50 | 13.50 |
| Scottsbluff | 16.75 | 2 | 18.75 | 20.75 | 13.25 |

## MAGNOLIA PETROLEUM

| | | | | | |
|---|---|---|---|---|---|
| Muskogee, Okla. | 16 | 3 | 19 | 21 | 11 |
| Oklahoma City | 15 | 3 | 18 | 20 | 11 |
| Tulsa, Okla. | 14 | 3 | 17 | 19 | 11 |
| Fort Smith, Ark.* | 14 | *3 | 17 | 19 | 12 |
| Little Rock, Ark. | 16 | 5 | 21 | 23 | 12 |
| Texarkana, Ark.* | 14.5 | *3 | 17.5 | 21.5 | 12 |
| Dallas, Tex. | 14 | 3 | 17 | 21 | 11 |
| Fort Worth, Tex. | 14 | 3 | 17 | 20 | 11 |
| Houston, Tex. | 14 | 3 | 17 | 21 | 15 |
| San Antonio, Tex. | 14 | 3 | 17 | 20 | 10 |
| El Paso, Tex. | 15 | 3 | 18 | 21 | 16 |

*Within City of Texarkana and Fort Smith, the state tax on gasoline is 3c per gal. conforming with the Texas state tax. In these two districts outside of the city the 5c Arkansas tax applies.

## V. M. & P. NAPHTHA

(Changes ordinarily occur coincident with gasoline price changes)

| | Oleum Spirits | V.M.&P. Naphtha | Cleaner Naphtha |
|---|---|---|---|
| Chicago | 14.7 | 16.2 | 18 |
| Detroit | 16.4 | 17.9 | 19.7 |
| Kansas City | †14.9 | †16.4 | †18.2 |
| Milwaukee | 15.4 | *18.9 | *20.7 |
| Minneapolis | *18.7 | *20.2 | *22 |
| St. Louis | 14.6 | 16.1 | 17.9 |
| New York | | 19 | .... |

*Includes 2c state tax. †Includes 1c city tax.

# CANADA

(Per Imperial Gallon, which is 1.2 American Gallons)

### ONTARIO

| | Gasoline | | | | Oil |
|---|---|---|---|---|---|
| | | | Total | | |
| | T.W. | Tax | T.W. | S.S. | T.W. |
| Toronto | 19.5 | 3 | 22.5 | 26 | 21 |
| Ottawa | 19.5 | 3 | 22.5 | 26 | 21 |
| Cochrane | 24.5 | 3 | 27.5 | 36 | 26 |
| Ft. William | 22.5 | 3 | 25.5 | 29 | 22.5 |

### MANITOBA

| | | | | | |
|---|---|---|---|---|---|
| Winnipeg | 21.5 | 3 | 24.5 | 28 | 21.5 |

### SASKATCHEWAN

| | | | | | |
|---|---|---|---|---|---|
| Regina | 25.5 | 3 | 28.5 | 33 | 25.5 |

### ALBERTA

| | | | | | |
|---|---|---|---|---|---|
| Edmonton | 26.5 | 3 | 29.5 | 33 | 26.5 |
| Calgary | 22.5 | 3 | 25.5 | 29 | 22.5 |

### BRITISH COLUMBIA

| | | | | | |
|---|---|---|---|---|---|
| Vancouver | 21 | 3 | 24 | 28 | 22 |

### QUEBEC

| | | | | | |
|---|---|---|---|---|---|
| Montreal | 20.5 | 5 | 25.5 | 29 | 21 |
| Quebec City | 22.5 | 5 | 27.5 | 33 | 23 |
| Three Rivers | 22.5 | 5 | 27.5 | 31 | 23 |

### NEW BRUNSWICK

| | | | | | |
|---|---|---|---|---|---|
| St. John | 22.5 | 3 | 25.5 | 30 | 22 |
| Moncton | 22.5 | 3 | 25.5 | 30 | 22 |

### NOVA SCOTIA

| | | | | | |
|---|---|---|---|---|---|
| Halifax | 22.5 | 5 | 27.5 | 32 | 22 |
| Sydney | 22.5 | 5 | 27.5 | 32 | 22 |

### PRINCE EDWARD ISLAND

| | | | | | |
|---|---|---|---|---|---|
| Charlottetown | 22.5 | 5 | 27.5 | 31 | 22 |

Note: In districts surrounding these points 1c additional is added to city price.

Above prices include these inspection fees on both gasoline and kerosene, per gallon: Alabama, 1/40c on gasoline, 1/2c kerosene; Arkansas, 1/20c on both; Colorado, 1/10c on both; Florida, 1/8c; Indiana, 2/25c; Kansas, 1/50c; Louisiana, 1/32c on gasoline, 1c on kerosene; Minnesota, 3/50c; Missouri, 1/50c; Nebraska, 3/50 to 1/2c; North Carolina, 1/4c; North Dakota, 1/20c; Oklahoma, 4/25c; South Carolina, 1/8c; South Dakota, 1/10c; Tennessee, 2/5c on gasoline and 1/2c on kerosene; Wisconsin, 3/50c.

Kerosene inspection fees only: Iowa, 13/100c; Michigan, 1/5 to 4/5c per gal.

In Illinois, cities and villages have the power to appoint oil inspectors and fix inspection fees which is done in some instances. In some cases in the above states or other states there are local inspection fees.

# Compilation Of Mid-Continent Refinery Operations

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National Petroleum News

## Mid-Continent Refinery Operations Week Ended August 3 (By Telegraph)

| | Kansas | Oklahoma | North & Cent. Texas | North La.-Ark. | Total Week Ended Aug. 3 | Total Week Ended July 6 |
|---|---|---|---|---|---|---|
| Plants Reporting | 12 | 29 | 28 | 12 | 81 | 80 |
| Crude Capacity | 92,000 | 157,200 | 127,600 | 54,900 | 431,700 | 437,100 |
| Cracking Capacity | 30,700 | 52,600 | 17,200 | 22,700 | 123,200 | 123,200 |
| Da. Av. Crude Runs | 74,283 + 3.5 | 116,950 + 4.7 | 91,014 — 3.9 | 56,580 — 5.5 | 338,827 + 0.2 | 312,134 |
| Da. Av. Other Oils | 6,161 + 24.3 | 6,469 +108.8 | 6,827 — 9.9 | 1,512 + 48.2 | 20,959 + 25.9 | 19,334 |
| **GASOLINE—Gallons** | | | | | | |
| Stocks, July 27 | 10,807,000 | 28,207,000 | 15,700,000 | 3,025,000 | 57,739,000 | 75,540,000 |
| Prod. 7-27 to 8-3 | 10,728,000 + 5.9 | 18,213,000 — 0.3 | 9,753,000 — 5.0 | 4,891,000 — 7.1 | 43,585,000 — 0.8 | 38,886,000 |
| Ship. 7-27 to 8-3 | 12,152,000 + 10.4 | 21,671,000 — 1.7 | 11,490,000 + 6.7 | 5,552,000 + 11.2 | 50,865,000 + 4.2 | 43,211,000 |
| Stocks, Aug. 3 | 9,383,000 — 13.2 | 24,749,000 — 12.3 | 13,963,000 — 11.1 | 2,364,000 — 21.9 | 50,459,000 — 12.6 | 71,215,000 |
| Ratio Sales to Prod | 113.3% | 119.0% | 117.8% | 113.5% | 116.7% | 111.2% |
| **KEROSENE—Gallons** | | | | | | |
| Stocks, July 27 | 8,413,000 | 3,594,000 | 1,813,000 | 414,000 | 14,234,000 | 14,707,000 |
| Prod. 7-27 to 8-3 | 2,138,000 | 2,449,000 — 13.7 | 1,437,000 — 7.6 | 212,000 — 6.6 | 6,236,000 — 7.8 | 6,266,000 |
| Ship. 7-27 to 8-3 | 2,040,000 + 19.2 | 2,804,000 — 25.2 | 1,602,000 + 28.1 | 172,000 — 49.4 | 6,618,000 — 6.2 | 5,811,000 |
| Stocks, Aug. 3 | 8,511,000 + 1.2 | 3,239,000 — 9.9 | 1,648,000 — 9.1 | 454,000 + 9.7 | 13,852,000 — 2.7 | 15,162,000 |
| Ratio Sales to Prod | 95.4% | 114.5% | 111.5% | 81.1% | 106.1% | 92.7% |
| **STOVE DISTILLATE—Gallons** | | | | | | |
| Stocks, July 27 | 2,161,000 | 2,566,000 | 537,000 | 66,000 | 5,330,000 | 4,870,000 |
| Prod. 7-27 to 8-3 | 222,000 — 37.3 | 330,000 — 15.8 | 110,000 + 1.9 | 103,000 + 14.4 | 765,000 — 19.0 | 638,000 |
| Ship. 7-27 to 8-3 | 249,000 — 31.6 | 338,000 + 6.6 | 101,000 + 25.3 | 105,000 + 4.0 | 793,000 — 8.0 | 629,000 |
| Stocks, Aug. 3 | 2,134,000 — 1.2 | 2,558,000 — 0.3 | 546,000 + 1.7 | 64,000 — 3.0 | 5,302,000 — 0.5 | 4,789,000 |
| Ratio Sales to Prod | 112.2% | 102.4% | 91.8% | 101.9% | 103.7% | 98.6% |
| **GAS OIL—Gallons** | | | | | | |
| Stocks, July 27 | 7,662,000 | 38,447,000 | 3,724,000 | 5,288,000 | 55,121,000 | 56,020,000 |
| Prod. 7-27 to 8-3 | 2,023,000 — 0.3 | 4,346,000 + 60.4 | 2,120,000 + 14.3 | 2,285,000 — 32.2 | 10,774,000 + 8.1 | 4,984,000 |
| Ship. 7-27 to 8-3 | 1,979,000 + 16.3 | 4,566,000 +271.8 | 1,996,000 + 66.8 | 1,627,000 — 54.2 | 10,168,000 + 32.4 | 7,599,000 |
| Stocks, Aug. 3 | 7,706,000 + 0.6 | 38,227,000 — 0.6 | 3,848,000 + 3.3 | 5,946,000 + 12.4 | 55,727,000 + 1.1 | 53,405,000 |
| Ratio Sales to Prod | 97.8% | 105.1% | 94.2% | 71.2% | 94.4% | 152.5% |
| **FUEL OIL—Gallons** | | | | | | |
| Stocks, July 27 | 20,861,000 | 52,175,000 | 61,793,000 | 18,206,000 | 153,035,000 | 137,848,000 |
| Prod. 7-27 to 8-3 | 7,911,000 — 0.5 | 7,977,000 + 4.2 | 13,377,000 — 2.5 | 8,273,000 + 6.1 | 37,538,000 + 1.1 | 37,390,000 |
| Ship. 7-27 to 8-3 | 7,688,000 + 2.2 | 6,962,000 — 13.9 | 11,684,000 — 4.4 | 8,810,000 + 5.9 | 35,144,000 — 2.8 | 30,798,000 |
| Stocks, Aug. 3 | 21,084,000 + 1.1 | 53,190,000 + 1.9 | 63,486,000 + 2.7 | 17,669,000 — 2.9 | 155,429,000 + 1.6 | 144,440,000 |
| Ratio Sales to Prod | 97.2% | 87.3% | 87.3% | 106.5% | 93.6% | 82.4% |

## Gasoline Produced by Various Methods, Week Ended August 3

| | Kansas | % of Total | Oklahoma | % of Total | Texas | % of Total | Louisiana-Arkansas | % of Total | Total | % of Total |
|---|---|---|---|---|---|---|---|---|---|---|
| Straight Run | 7,321,000 | 68.2 | 11,548,000 | 63.4 | 7,880,000 | 80.8 | 2,207,000 | 45.1 | 28,956,000 | 66.4 |
| Cracked | 2,508,000 | 23.4 | 5,260,000 | 28.9 | 1,450,000 | 14.9 | 2,201,000 | 45.0 | 11,419,000 | 26.2 |
| Natural | 899,000 | 8.4 | 1,405,000 | 7.7 | 423,000 | 4.3 | 483,000 | 9.9 | 3,210,000 | 7.4 |
| Total | 10,728,000 | | 18,213,000 | | 9,753,000 | | 4,891,000 | | 43,585,000 | |

+ or — columns are % change from previous week.

# Gasoline Stocks Down to Less Than Week's Supply

Staff Special—By Telegraph
TULSA, Aug. 7

A NEW high record for gasoline shipments was established for the week ended Aug. 3 by 81 Mid-Continent refiners reporting weekly operations to this publication. Shipments totaled 50,865,000 gallons or 60,000 gallons above the previous high record set for the week ended July 20.

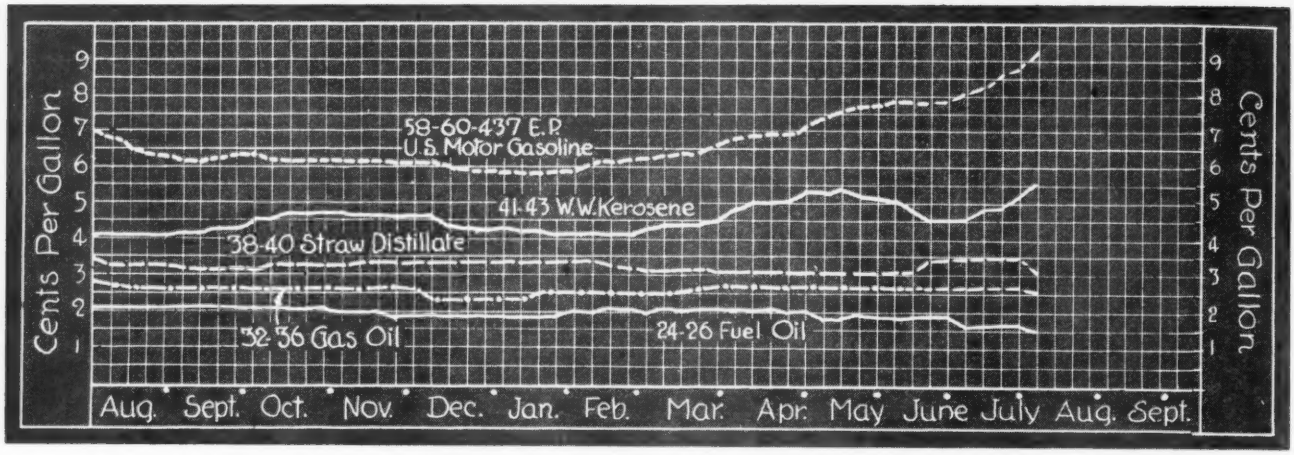
With crude runs held virtually unchanged for the field as a whole, production was slightly over 300,000 gallons lower than for week ended July 27, the total output being 43,585,000 gallons. The result of the unchanged crude runs and slightly lower production was a record draft of 7,200,000 gallons on stocks. Stocks on hand, at the end of the week totaled 50,459,000 gallons or less than one week's supply at the current rate of shipments.

## Summary for the Month

Production and shipments, all reporting refineries, for four weeks ended Aug. 3. Change in stocks figures from July 6.

| | Gallons |
|---|---|
| **GASOLINE** | |
| Production | 178,609,000 |
| Shipments | 199,365,000 |
| Net change in stocks | — 20,756,000 |
| Ratio sales to production | 111.6% |
| **KEROSENE** | |
| Production | 26,415,000 |
| Shipments | 27,725,000 |
| Net change in stocks | — 1,310,000 |
| Ratio sales to production | 105.0% |
| **STOVE DISTILLATE** | |
| Production | 3,447,000 |
| Shipments | 2,934,000 |
| Net change in stocks | + 513,000 |
| Ratio sales to production | 85.1% |
| **GAS OIL** | |
| Production | 35,976,000 |
| Shipments | 35,654,000 |
| Net change in stocks | + 2,322,000 |
| Ratio sales to production | 93.5% |
| **FUEL OIL** | |
| Production | 155,481,000 |
| Shipments | 144,492,000 |
| Net change in stocks | + 10,989,000 |
| Ratio sales to production | 92.9% |

## Current Prices of Principal Mid-Continent Refined Products




*Prices shown are on Group 3 basis and extended to date shown in Refinery Market Tables Section of this Issue*

Stocks of gasoline on hand at the corresponding period in 1927 totaled 69,639,000 gallons or approximately 19,000,000 gallons above the stocks on hand Aug. 3. Two years ago stocks on Aug. 6 totaled 47,719,000 gallons or slightly less than 3,000,000 gallons under the present total. At that time, however, shipments were only 35,316,000 gallons and the stocks on hand represented more than a week's supply at the then current rate of shipments.

Kansas and Oklahoma refiners increased crude charges during the week while the Texas, Louisiana and Arkansas refiners made reductions which virtually offset the increases. Kansas refiners drew 1,500,000 gallons of gasoline from storage while Oklahoma refiners reduced stocks 3,400,000 gallons. Texas refiners had a stock reduction of 1,700,000 gallons and the Louisiana-Arkansas group cut stocks 600,000 gallons. Every field with the exception of Oklahoma showed an increase in shipments, Kansas refiners having an increase of 10.4 per cent, Texas refiners 6.7 per cent and Arkansas-Louisiana 11.2 per cent. Oklahoma refiners shipments were off only 1.7 per cent.

Kerosene stocks were reduced for the second consecutive week for the field as a whole. Production was reduced approximately 500,000 gallons while shipments were approximately 400,000 gallons lower than the previous week but stocks were cut 300,000 gallons. The reductions were in Oklahoma and Texas which probably accounts in part for the recent advances in refinery prices for kerosene in those two districts. Stocks of kerosene on hand Aug. 3 totaled 13,852,000 gallons as compared with 12,600,000 gallons at this time last year.

The buying of stove distillates which was reflected first in Kansas has been moved into Oklahoma and those two districts as well as the Arkansas-Louisiana district reported a draft on stocks. Kansas refiners continued to show the largest ratio of sales to production. Stocks for the field as a whole were reduced 28,000 gallons with both production and shipments slightly lower than for the previous week.

Gas oil production was increased approximately 500,000 gallons for the week while shipments were increased more than 2,400,000 gallons. Stocks, however, were increased 600,000 gallons. Oklahoma refiners not only increased gas oil production but also increased shipments. This district was the only one to draw on stocks.

Fuel oil stocks continued to mount with production virtually unchanged and shipments slightly lower than for the previous week. Stocks for the field as a whole increased 2,300,000 gallons. The Louisiana-Arkansas refiners were the only ones who drew any fuel from storage. Their reduction amounted to approximately 600,000 gallons.

One small Oklahoma plant which has been shut down for some time has resumed operation and is included in this week's report.

# How Station Managers Help Collect Delinquent Accounts

DALLAS, Aug. 4

STATION managers are used by the Oriental Oil Co. in collecting delinquent service station accounts. The system works on the theory that the managers can put a personal touch in collections and that the managers are more interested, since loss of a customer means decreased commissions to them.

"All of our station men know that it is to their advantage to keep all their customers paying their accounts promptly," explained E. P. Simmons, credit manager who said the system has done much.

"We keep station managers informed as to the status of all their accounts, so that they gladly help us in collection. After an account becomes a month old, that is when the month in which it is due comes to a close, we send a card notification to all of the station managers to that effect.

"This card gives the delinquent customer's name and address and the amount of his past due account. Naturally this customer does not buy from all stations; and possibly he patronizes only one—the one which is managed by an acquaintance of his. So the card is checked by each manager and those who are concerned take proper notice.

"They know that, when one of their customers gets on this list, his account is running dangerously near the closing line. They know that, unless this customer pays up within a few days, his credit allowance is going to be cut off, and that curtailment means loss of patronage for the individual station or stations where the customer does business.

"It is only logical that the station managers with whom this delinquent customer trades remember the status of the account when the customer next comes in and that something be said about the account.

"Although the station manager is still permitted to sell to the customer, he realizes that this probably will be his last credit sale until the customer pays up; and he naturally thinks to mention the old account.

"It is easier for the manager to approach his own customer than it is for us to do it through this office. He is acquainted with the man and

probably knows a lot about him personally.

"He knows how to appeal to the man's sense of fairness. Being acquainted with the motorist, the individual manager can do it better than we here in the office who do not know him.

"The station man knows that the account is going to be closed unless the outstanding obligation is paid and he puts it up to his customer in a plain, understanding manner. Usually he induces the customer to pay the account because he is able to make him realize the importance of keeping his credit record clear."

Within about a week after this first card goes out, another follows to the effect that the customer's account is closed against further credit until the old bill is paid. This is the notification that all station managers dread, and it is only natural that they work diligently in the interim to make the customer see the advantage of paying up.

All credit accounts are passed on by headquarters. When a customer asks for credit he fills in the usual form and this is turned in to the office. The Oriental Oil Co. is a member of the local credit organization. When a credit account is acceptable station managers are so informed by the office. Credit customers charge accounts cover all 18 stations operated by the Oriental Oil Co.

Station managers are not responsible for charge accounts unless they disobey orders from headquarters.

## Name Oil Man Secretary Of Association

CHICAGO, Aug. 3.—Paul Deer of G. W. Deer & Sons, Inc., Crawfordsville, Ind., has been chosen secretary of Independent Oil Men of America. The action was taken by the I.O.M.A. trustees in session at 624 South Michigan avenue, Chicago, on July 17.

Mr. Deer will not be a salaried officer of the organization. His appointment was to fill a vacancy in an office provided by the I.O.M.A. constitution. The vacancy was made by the recent resignation of Eva Arnstein, secretary during the L. V. Nicholas administration. The secretary's duties will be performed by Miss Helen Schroeter, secretary of Lou Harrington, manager.

### Skinner's Year Book Out

CLEVELAND, Aug. 2.—The Oil and Petroleum Year Book, which is published yearly by Walter E. Skinner, at London, can be purchased by addressing Walter E. Skinner, 15, Dowgate Hill, Cannon St., London, E. C. 4, England. Price of the book is 8/6d, or approximately $2.12. It is a directory of oil companies operating throughout the world. The announcement of the book was published in the June 20 issue of NATIONAL PETROLEUM NEWS, Page 28.

*Why does he look at the label?*

NOT one man in a thousand possesses expert knowledge that qualifies him to pass critical judgment on a suit of clothes. He has neither time nor the inclination to be an expert on the infinite number of articles he buys.

In his mind that label is a warranty of value —a personal promise of complete satisfaction from the manufacturer. He takes it for granted that the manufacturer whose name appears on the label knows his business. So he buys on confidence.

And the confidence of the buying public has become so integral a part of the success of manufacturer that he dare not jeopardize it by slighting value.

The American Steel Package Company was founded on the ideal of manufacturing a product identified with a high degree of value and during years of manufacture we have constantly strived to add to the esteem in which Defiance Steel Barrels are held among buyers in the oil field.

THE AMERICAN STEEL PACKAGE CO.
Defiance, Ohio

**DEFIANCE**
*Distinguished for Honest Value*

WHEN YOU WANT QUALITY AND REASONABLE PRICES

*Mixed Carload in Drums—or Tank Cars*

"INVINCIBLE" MOTOR OILS

"CASTOR-OI" (BEAN CASTOR BLEND) MOTOR OIL

100% Pennsylvania or Western Blends

*To Match Any Oil Made*

A. D. MILLER SONS' CO.

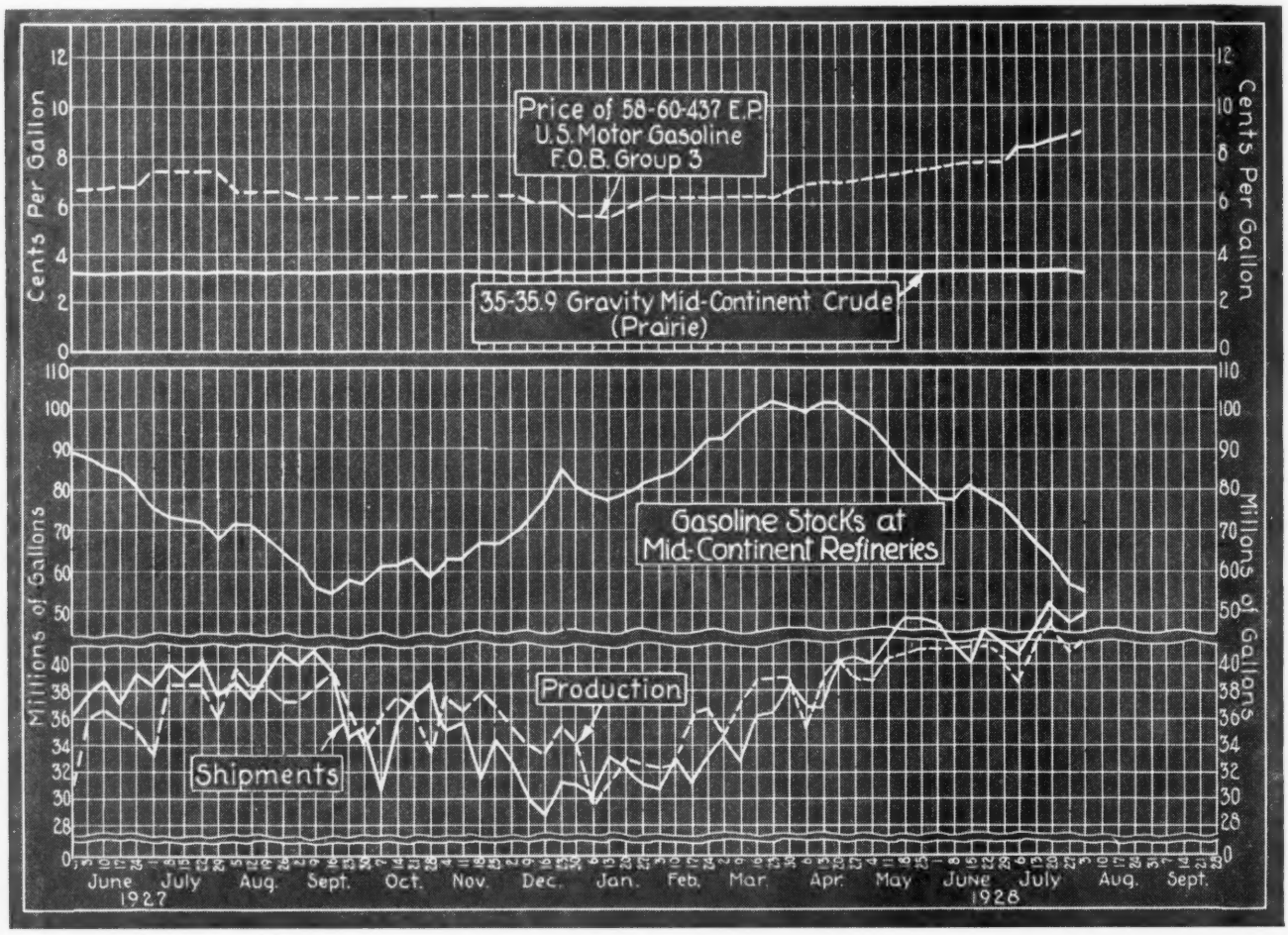
*Millers Oil Refining Works*

PITTSBURGH, PENNA.

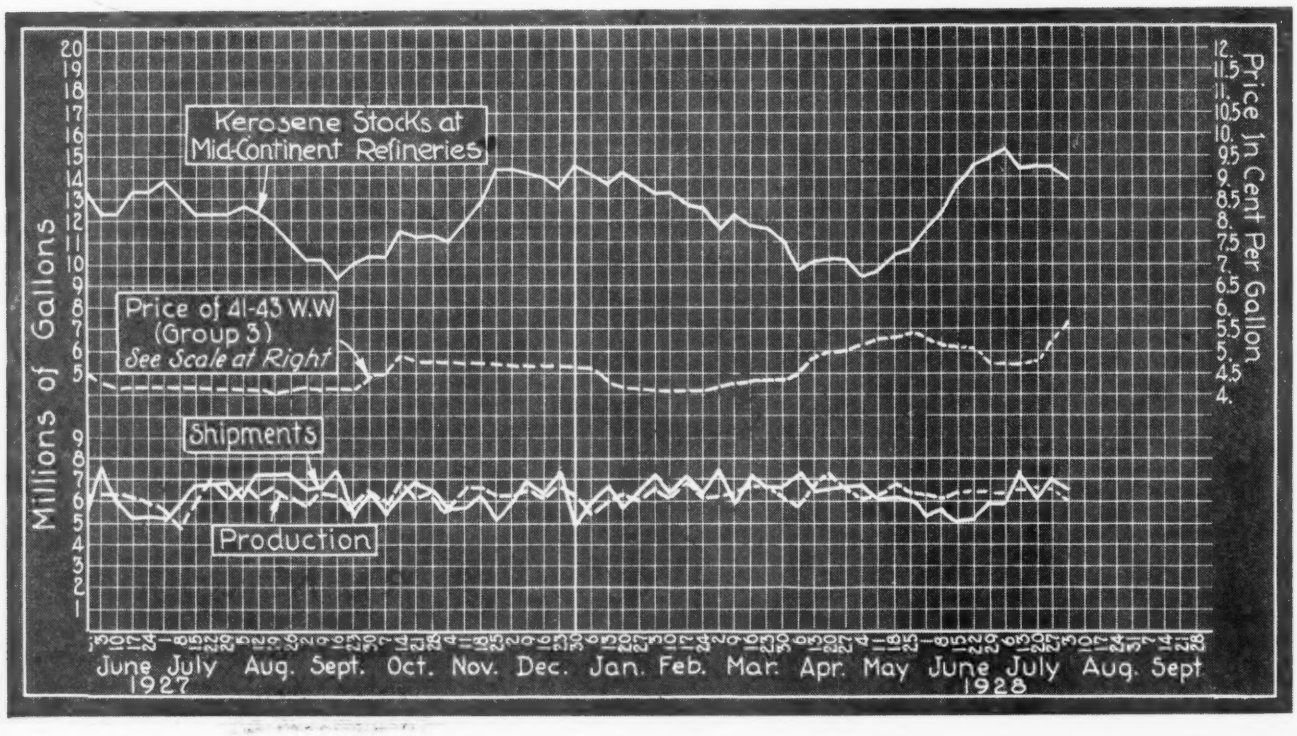
*Oldest Pennsylvania Refiners*

# Barometer of Mid-Continent Refinery Market—Week Ending August 3

*Charted Course of Prices, Production, Shipments, Stocks of Principal Refined Products, Week by Week, From Reports Made by 80 Plants to National Petroleum News*


Price of 58-60-437 E.P. U.S. Motor Gasoline F.O.B. Group 3
35-35.9 Gravity Mid-Continent Crude (Prairie)
Cents Per Gallon
Gasoline Stocks at Mid-Continent Refineries
Production
Shipments
Millions of Gallons
June July Aug. Sept. Oct. Nov. Dec. Jan. Feb. Mar. Apr. May June July Aug. Sept.
1927
1928

*Prices shown above are extended to date shown in Refinery Market and Crude tables in Market section of this issue and stocks, shipments and Production are extended to date shown in table on opposite page*


Kerosene Stocks at Mid-Continent Refineries
Price of 41-43 W.W (Group 3) See Scale at Right
Shipments
Production
Millions of Gallons
Price In Cent Per Gallon
June July Aug. Sept. Oct. Nov. Dec. Jan. Feb. Mar. Apr. May June July Aug. Sept
1927
1928

## Safety Lift Co. Opens Chicago Office

CHICAGO, Aug. 3.—Paul F. Cosgrove, formerly an Independent oil jobber in Augusta, Ga., and well known among the oil men of the South has taken up a permanent abode in Chicago. Mr. Cosgrove started in the oil business calling on small town trade for the Standard Oil Co. of Kentucky. Later he held several responsible posts for Gulf Refining Co., before going in business for himself.

His mission in Chicago is to open the territory for the Safety Lift Co. He has been in charge of the southern division for that company for some time, with headquarters in Atlanta. At least for the present his headquarters is in the Stevens Hotel.

## New Patents

### July 24, 1928

#### REFINING

**Revivifying of spent decolorizing materials**—Oscar L. Barnebey, Columbus, O. Filed April 12, 1924. No. 1,677,947.

**Apparatus for cooling oil or other liquids**—James Moore, Burmah, British India, assignor to the Burmach Oil Co., Ltd., Glasgow, Scotland. Filed July 13, 1923. No. 1,678,070.

**Process of transforming light paraffin hydrocarbons into other products**—Alexander S. Ramage, Detroit, Mich., assignor to Bostaph Engineering Co., Detroit, Mich. Filed June 19, 1925. No. 1,678,078.

**Process and apparatus for cracking mineral oil**—James M. Schoonmaker, Jr., Sewickley, Pa., assignor by mesne assignments to The Texas Co., New York. Filed May 15, 1922. No. 1,678,126.

**Process for refining oils and waxes**—Walter Albert Patrick, Mount Washington, and Ernest Baldwin Miller, Baltimore, Md., assignors to the Silica Gel Corp., Baltimore, Md. Filed Mar. 16, 1922. No. 1,678,298.

**Apparatus for treating liquids to remove or recover substances therefrom**—Ernest B. Miller, Baltimore, Md. Filed June 6, 1922. No. 1,678,299.

**Flotation method**—Gale L. Adams, Elizabeth, N. J., assignor to Standard Oil Development Co. Filed Jan. 30, 1924. No. 1,678,311.

**Flotation oil**—Gale L. Adams, Huntington Park, Calif., assignor to Standard Oil Development Co. Filed Jan. 30, 1924. No. 1,678,312.

**Temperature controller for oil-separating towers**—Richard H. Carr and Cornelius B. Watson, Columbus, O., assignors to the Pure Oil Co., Chicago, Ill. Filed April 13, 1926. No. 1,678,228.

#### PRODUCTION

**Method of cementing oil wells**—Mierley T. McKee, Zanesville, O. Filed Nov. 26, 1926. No. 1,677,975.

**Well apparatus**—John T. Phipps, Huntington Park, Calif., assignor to John Grant, Los Angeles, Calif. Filed Oct. 26, 1925. No. 1,678,074.

**Expansible rotary under-reamer**—John T. Phipps, Los Angeles, Calif., assignor to John Grant, Los Angeles. Filed Dec. 14, 1925. No. 1,678,075.

**Rotary drill bit**—John P. Samuelson, Compton, Calif. Filed Sept. 17, 1923. No. 1,678,201.

**Agitator for chemically purifying oil**—Jerry W. Kincade, Lethbridge, Alta., Canada. Filed Oct. 28, 1926. No. 1,678,225.

**Well casing**—Harry Y. Carson, Birmingham, Ala., assignor to American Cast Iron Pipe Co., Birmingham. Filed Aug. 18, 1922. No. 1,678,280.

**Art of treating oil wells**—James B. Garner and George B. Leyden, Pittsburgh, Pa., assignors to Standard Oil Development Co., New York. Filed Feb. 3, 1923. No. 1,678,592.

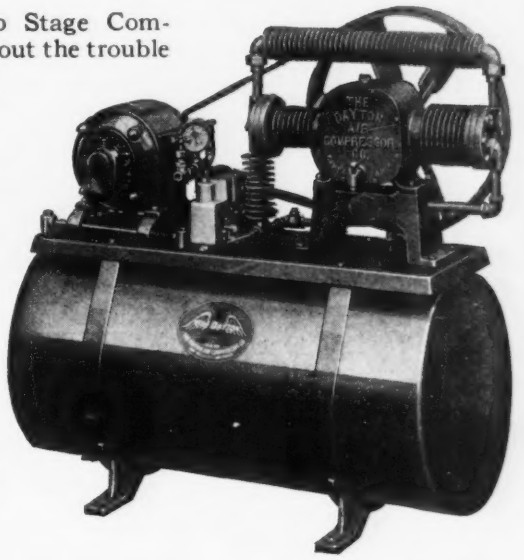

# POWER AND PEP IN "DAYTONS"

THE multiplied uses for compressed air have created a demand for air compressors of greater power. The new type illustrated below, the "Dayton" G-8, fills the bill in the larger stations, operating lift, paint spray gun, grease gun and all the other air operated devices which are now a necessity in the modern station.

If you need an air compressor for tire inflation only, or for paint spraying and tire inflation only, we suggest that you give us details of your needs, as you should not buy so large or expensive a model as the "G-8". We make 25 sizes and 7 types and it is our desire to give you a compressor of the right size for your station.

## THE "DAYTON" G-8 MAKES MONEY FOR USERS WHO NEED ITS CAPACITY.

All "Dayton" Two Stage Compressors are built without the trouble makers found in many types now being offered.



## NO

Connecting Rods—
Crosshead Pins—
Cotter Pins—
Bolts—

Practically free from any and every thing that causes delay and repairs in other makes of air compressors.

The only two-stage air compressors in the world that have eliminated these sources of annoyance.

**DAYTON AIR COMPRESSORS**

**425 Valley St.** **Dayton, Ohio**



## Gasoline And Other Motor Fuels

**by Ellis and Meigs, is a book which gives a complete survey of the field and a description of practically every process of making gasoline and most other motor fuels of promise or prominence.**

**The price of the book is $10. Just send us your check and we will mail a copy of it to you.**

**National Petroleum News, 1213 W. Third St., Cleveland, Ohio**

# FREEDOM

## 100% Pennsylvania Motor Oil

## —*guaranteed by the complete refinery which makes it*

Just as buyers of machinery prefer their purchases covered by one guarantee, you can buy Freedom 100% Pennsylvania Motor Oils on the same basis.

All elements which go into these exceptional products are refined by this one complete organization, The Freedom Oil Works Company, in its two plants, at Freedom and at Coraopolis, Penna.

At Freedom, is refined the wonderful 100% Pennsylvania Crude Neutrals which are used *exclusively*.

At Coraopolis, is refined the exceptional 450 Bright Stock (Sharples Process) which also is used *exclusively*.

Then the two are blended to high specifications by this 48 year old organization — you get a complete line of oils, consequently, that attracts business and HOLDS it.

Immediate deliveries can be made in tank cars, in compartment cars, barrels, or drums.

Guaranteed 100% PURE PENNSYLVANIA OIL

Permit No. 31

**Also available for immediate shipment**

450 Bright Stock (Sharples Process) which requires less neutral to blend to the ordinarily required specifications.

100% Pennsylvania Motor Oils, *blended to your own Specifications*, from Freedom 450 Bright Stock and Freedom 100% Pennsylvania Crude Neutrals.

Freedom Quality Stocks
600 Steam Refined
635 Steam Refined
650 Steam Refined

Freedom 300 Mineral Seal Oil made to Railroad Specifications.

Freedom Filtered Burning Oils.

The Freedom Oil Works Company
Freedom, Penna.
Established 1879
Refineries at Freedom and Coraopolis, Pennsylvania

# FREEDOM

*H. W. Young, research engineer of the Midwest Refining Co., snapped on the front porch of the Midwest's laboratory at the gasoline plant in the Salt Creek field. Mr. Young is responsible for several of the improvements in natural gasoline plant practice of the Midwest and has contributed numerous technical articles to trade and scientific associations and journals*

## New Publications

Practical information for dealers contemplating handling fuel oil for oil burners, but unacquainted in general with the oil distributing business, is contained in Fuel Oil Service, a book of 70 pages, prepared by Dorsey R. Beane, 3808 Alton Pl., N. W., Washington, D. C., published in multigraphed form. Mr. Beane is manager of the fuel oil department of the Griffiths-Consumers Co., Washington.

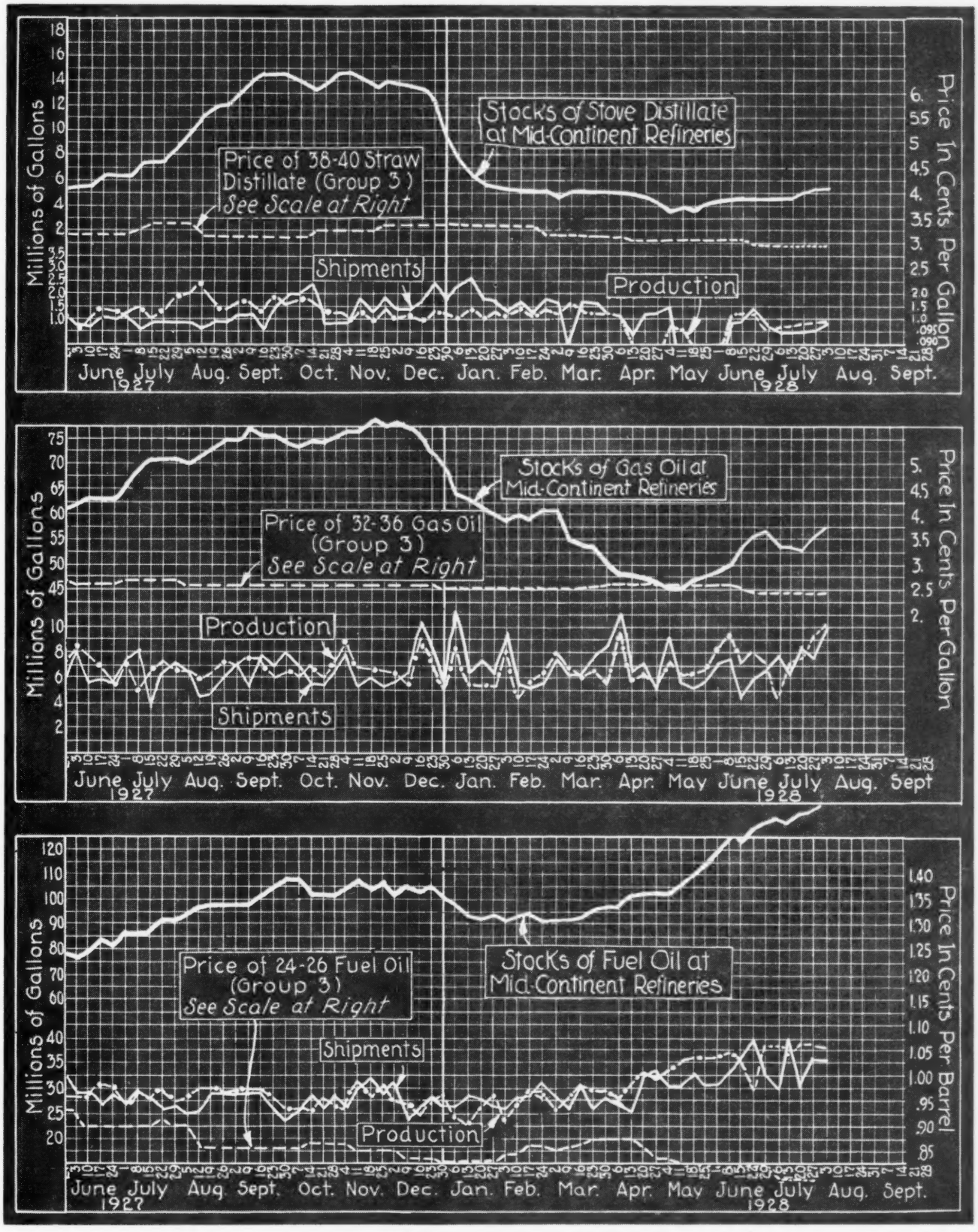
The book takes up the analysis of the market in the dealer's community, possible arrangements with refiners in purchasing fuel oil wholesale, contracting with customers, equipment necessary for bulk handling of fuel oils and so on.

### I.O.M.A. Moves Headquarters

CHICAGO, Aug. 3.—Independent Oil Men of America, whose headquarters office has been in the Blum building at 624 South Michigan avenue, Chicago, for six years is moving. By the time the news can be generally published the organization will be settled in new quarters in the Engineering building at 205 West Wacker drive—at the corner of Wacker and Wells. The new offices are on the 19th floor.

# Barometer of Mid-Continent Refinery Market—Week Ending August 3

*Charted Course of Prices, Production, Shipments, Stocks of Principal Refined Products, Week by Week, From Reports Made by 80 Plants to National Petroleum News*


Millions of Gallons
Price In Cents Per Gallon
Stocks of Stove Distillate at Mid-Continent Refineries
Price of 38-40 Straw Distillate (Group 3) See Scale at Right
Shipments
Production
June July Aug. Sept. Oct. Nov. Dec. Jan. Feb. Mar. Apr. May June July Aug. Sept.
1927
1928
Millions of Gallons
Price In Cents Per Gallon
Stocks of Gas Oil at Mid-Continent Refineries
Price of 32-36 Gas Oil (Group 3) See Scale at Right
Production
Shipments
June July Aug. Sept. Oct. Nov. Dec. Jan. Feb. Mar. Apr. May June July Aug. Sept
1927
1928
Millions of Gallons
Price In Cents Per Barrel
Price of 24-26 Fuel Oil (Group 3) See Scale at Right
Stocks of Fuel Oil at Mid-Continent Refineries
Shipments
Production
June July Aug. Sept. Oct. Nov. Dec. Jan. Feb. Mar. Apr. May June July Aug. Sept.
1927
1928

## *Automatic Measurement*

WHEREVER automatic measuring is desired, Niagara Oil Meters are in constant demand because of their accuracy and dependability in measuring all petroleum products. If you are still depending on measurements taken by stick gauges, pails, etc., many gallons are passing through the pipes unchecked and extra profits are slipping through your fingers.

Decide today to investigate the real economies of Niagara Oil Meters. They are made in sizes ranging from ½ inch to 6 inches, among which is a type and size that will meet your individual requirements.

BUFFALO METER COMPANY
2889 Main Street Buffalo, New York

Niagara Oil Meters
*"The Constant Guardians of Liquid Profits"*

# VARIETY

BESIDES building a great line of standardized tanks, The Youngstown Boiler & Tank Company also builds tanks of any size or description. Agitators, Stills, Railroad Water Tanks, Heater Coil Tanks, Standpipes, Elevated Tanks, Pressure Tanks, Bulk Storage Tanks, Acid Tanks, Oil Field Tanks, Industrial Tanks, Rectangular Tanks and tanks of individual or specific design. We carry in stock structural steel supports for all of our standard horizontal tanks.

Our competent engineers are ready at all times to assist you in plans suited to your various requirements. Just let us know what particular job you have in mind—if we can't build it, it can't be built.

***Write for Bulletin No. 15.***

**THE YOUNGSTOWN BOILER & TANK CO.**
YOUNGSTOWN, OHIO
***Offices in Principal Cities***

Youngstown TANKS "KEENE STANDARDIZED MADE"

# GULF Refining Company

*General Sales Offices*
**PITTSBURGH, PA.**

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New York, Boston, Philadelphia, Louisville, Houston, New Orleans, Atlanta, Tampa

REFINERS OF OKLAHOMA, TEXAS AND LOUISIANA

# PETROLEUM

Refined Oil, Naphtha, Paraffine Wax
Gasoline, Gas Oils, Petroleum Coke

## FUEL OILS

## LUBRICATING OILS

Cylinder, Engine, Cordage

RED AND PALE PARAFFINE OILS

# Crude Oil Prices (in Effect Aug. 6)

*(Crude prices for years 1924-1925-1926-1927 in OIL PRICE HANDBOOK published annually)*

### EASTERN FIELDS

**(Posted by Joseph Seep Purchasing Agency)**

| | |
|---|---|
| Penna. Grade Oil in New York Transit Lines (Alleghany, N. Y. District) | $3.20 |
| Bradford District Oil in National Transit Lines (Bradford District) | 3.20 |
| Penna. Grade Oil in National Transit Lines (Other Pennsylvania) | 3.10 |
| Penna. Grade Oil in Southwest Penna. Pipe Lines (Other Pennsylvania) | 3.10 |
| Penna. Grade Oil in Eureka Pipe Lines (West Virginia) | 3.00 |
| Penna. Grade Oil in Buckeye Pipe Lines (Macksburg, O. district) | 2.85 |
| Keister Grade in National Transit Lines (Butler Co.) | 1.20 |
| Cabell Grade in Eureka Pipe Lines (West Virginia) | 1.45 |
| Corning Grade in Buckeye Pipe Lines (Ohio) | 1.70 |
| Corning, O., heavy grade | 1.60 |
| Somerset Oil in Cumberland Pipe Lines (Kentucky) | 1.70 |
| Ragland Grade in Cumberland Pipe Lines (Kentucky) | .95 |

**(Posted by Stoll Oil Refining Co.)**

| | |
|---|---|
| Oil City, Ky., oil in Stoll lines | $1.55 |

### CENTRAL STATES FIELDS
**Posted by Ohio Oil Co.**

Effective July 27, 1928

| | | | |
|---|---|---|---|
| Wooster | $1.67 | Princeton | $1.55 |
| Lima | 1.60 | Illinois | 1.55 |
| Waterloo | 1.20 | Plymouth | 1.28 |
| Indiana | 1.37 | West Kentucky | 1.48 |

### CANADIAN CRUDE
**Posted by Imperial Oil Refineries, Ltd.**

| | |
|---|---|
| Petrolia | $2.00 |
| Oil Springs | 2.07 |

### OKLAHOMA, KANSAS and NORTH TEXAS
**Prices of Prairie Oil & Gas Co.**
**(In Oklahoma, Kansas, North and East Central Texas)**

Effective July 26, 1928

| | | | |
|---|---|---|---|
| Below 25 | $0.60 | 35-35.9 | $1.31 |
| 25-25.9 | 0.67 | 36-36.9 | 1.36 |
| 26-26.9 | 0.74 | 37-37.9 | 1.41 |
| 27-27.9 | 0.81 | 38-38.9 | 1.46 |
| 28-28.9 | 0.88 | 39-39.9 | 1.51 |
| 29-29.9 | 0.95 | 40-40.9 | 1.56 |
| 30-30.9 | 1.02 | 41-41.9 | 1.61 |
| 31-31.9 | 1.09 | 42-42.9 | 1.66 |
| 32-32.9 | 1.16 | 43-43.9 | 1.71 |
| 33-33.9 | 1.21 | 44 and above | 1.76 |
| 34-34.9 | 1.26 | | |

**Humble Oil & Refining Co. Prices**

(Ranger, North Texas, Mexia, Powell, Richland, Wortham, Lytton Springs, Currie, Moran and Nocona crudes all in Texas.)

Effective July 26, 1928

| | | | |
|---|---|---|---|
| Below 25 | $0.60 | 26-26.9 | $0.74 |
| 25-25.9 | 0.67 | 27-27.9 | 0.81 |

Rest of schedule same as Prairie's.

| | |
|---|---|
| Mirando, Tex. | $1.00 |

**Magnolia Petroleum Co.**

(In Oklahoma, Kansas and North and East Central Texas)

July 26, Magnolia posted in above fields and in Panola Co., same schedule as Prairie, except these grades, unchanged from Feb. 16:

| | | | |
|---|---|---|---|
| Below 25 | $0.60 | 26-26.9 | 0.74 |
| 25-25.9 | 0.67 | 27-29.9 | 0.75 |
| 30-30.9 | | | 0.90 |
| 31-31.9 | | | 1.05 |
| Glasscock, Crane, Upton, Winkler Counties | | | 0.65 |
| Chalkfield (Howard Co.) | | | 0.80 |
| Iatan district | | | 0.93 |
| Corsicana heavy | | | 1.00 |

**Carter Oil Co.**

(Oklahoma and Kansas)

July 26, same schedule as Prairie plus these grades:

| | | | |
|---|---|---|---|
| 25-25.9 | $0.67 | 27-27.9 | $0.81 |
| 26-26.9 | 0.74 | | |

### PANHANDLE, TEXAS
**Humble Oil & Refining Co.**

Effective July 26, 1928

Hutchinson and Carson Counties:

| | | | |
|---|---|---|---|
| Below 32 | $0.69 | 38-38.9 | $1.06 |
| 32-32.9 | 0.76 | 39-39.9 | 1.11 |
| 33-33.9 | 0.81 | 40-40.9 | 1.16 |
| 34-34.9 | 0.86 | 41-41.9 | 1.21 |
| 35-35.9 | 0.91 | 42-42.9 | 1.26 |
| 36-36.9 | 0.96 | 43-43.9 | 1.31 |
| 37-37.9 | 1.01 | 44 and above | 1.36 |

Wheeler County:

| | | | |
|---|---|---|---|
| Below 30 | $0.65 | 37-37.9 | $1.11 |
| 30-30.9 | 0.72 | 38-38.9 | 1.16 |
| 31-31.9 | 0.79 | 39-39.9 | 1.21 |
| 32-32.9 | 0.86 | 40-40.9 | 1.26 |
| 33-33.9 | 0.91 | 41-41.9 | 1.31 |
| 34-34.9 | 0.96 | 42-42.9 | 1.36 |
| 35-35.9 | 1.01 | 43-43.9 | 1.41 |
| 36-36.9 | 1.06 | 44 and above | 1.46 |

Gray County:

| | | | |
|---|---|---|---|
| Below 29 | $0.68 | 37-37.9 | 1.21 |
| 29-29.9 | 0.75 | 38-38.9 | 1.26 |
| 30-30.9 | 0.82 | 39-39.9 | 1.31 |
| 31-31.9 | 0.89 | 40-40.9 | 1.36 |
| 32-32.9 | 0.96 | 41-41.9 | 1.41 |
| 33-33.9 | 1.01 | 42-42.9 | 1.46 |
| 34-34.9 | 1.06 | 43-43.9 | 1.51 |
| 35-35.9 | 1.11 | 44 and above | 1.56 |
| 36-36.9 | $1.16 | | |

### WEST TEXAS
**Humble Oil & Refining Co.**

Effective July 26, 1928

| | |
|---|---|
| Winkler, Crane, Upton, Crockett, and Pecos Counties | $0.65 |

### NORTH LOUISIANA—ARKANSAS FIELDS
**Prices of Standard Oil Co. of Louisiana**

Caddo, Homer, Haynesville, Bull Bayou, El Dorado, Crichton, De Soto and **Cotton Valley.

Effective July 26, 1928

| | | | |
|---|---|---|---|
| Below 28 | $0.81 | 36-36.9 | $1.36 |
| 28-28.9 | 0.88 | 37-37.9 | 1.41 |
| 29-29.9 | 0.95 | 38-38.9 | 1.46 |
| 30-30.9 | 1.02 | 39-39.9 | 1.51 |
| 31-31.9 | 1.09 | 40-40.9 | 1.56 |
| 32-32.9 | 1.16 | 41-41.9 | 1.61 |
| 33-33.9 | 1.21 | 42-42.9 | 1.66 |
| 34-34.9 | 1.26 | 43-43.9 | 1.71 |
| 35-35.9 | 1.31 | 44 and above | 1.76 |

**Cotton Valley, below 36, $0.75. Beginning with 36-36.9, same schedule as above.

| | |
|---|---|
| Smackover, below 24 | $0.75 |
| do 24 and above | .90 |
| Bellevue | 1.25 |
| *Urania, La. | .85 |
| †East El Dorado | 1.00 |

*Posted by Louisiana Oil Refining Corp.

†Posted by Magnolia Petroleum Co.

Smackover prices posted on Feb. 7 by S. O. La. Gulf, Shreveport-El Dorado Pipe Line, Atlantic Oil Producing Co. and The Texas Co.; on Feb. 8 by Magnolia on Feb. 6 by La. Oil Refg. Corp.

### STEPHENS, ARKANSAS
**Louisiana Oil Refining Corp., and Atlantic Oil Producing Co.**

| | | | |
|---|---|---|---|
| Below 28 | $0.75 | 30-30.9 | $0.87 |
| 28-28.9 | 0.79 | 31-31.9 | 0.91 |
| 29-29.9 | 0.84 | 32 and above | 0.95 |

### GULF COASTAL
**Posted by Humble Oil & Refining Co.**

Effective March 14, 1927

| | | | |
|---|---|---|---|
| Grades A | $1.20 | 29-29.9 | $1.25 |
| Grades B: | | 30-30.9 | 1.27 |
| Below 25 | 1.15 | 31-31.9 | 1.29 |
| 25-25.9 | 1.17 | 32-32.9 | 1.31 |
| 26-26.9 | 1.19 | 33-33.9 | 1.33 |
| 27-27.9 | 1.21 | 34-34.9 | 1.35 |
| 28-28.9 | 1.23 | 35 and above | 1.37 |

Fields classified as A and B are Spindletop, Goose Creek, Hull, Liberty, Sour Lake, West Columbia, Orange, Boling and Pierce Junction. All other fields are Grades A only.

# Crude Price Changes

INDEPENDENCE, Aug. 2.—Prairie Oil & Gas Co. posted officially for the first time Mid-Continent crude below 28 gravity. Its new grades and prices are: below 25 gravity, 60 cents; 25-25.9, 67 cents; 26-26.9, 74 cents; and 27-27.9, 81 cents. These prices were announced Aug. 2 but are retroactive to and including July 26.

* * *

DALLAS—On Aug. 2 Magnolia Petroleum Co. regraded heavy oil in Kansas, Oklahoma and North Texas, by posting varying prices for oil below 30 gravity. Since Feb. 16 it has had one grade for below 30, priced at 75 cents. New prices and grades are: below 25, 60 cents; 25-25.9, 67 cents; 26-26.9, 74 cents; 27-29.9, 75 cents; 30-30.9 is unchanged at 90 cents and 31-31.9 at $1.05. Rest of the schedule is same as Prairie's.

* * *

NEW ORLEANS—On Aug. 2 Standard Oil Co. of Louisiana adopted Prairie's July 26 Mid-Continent crude schedule in North Louisiana and Arkansas fields, except that its schedule begins with below 28 gravity at 81 cents. This change is a cut of from 2 to 10 cents on oil below 32 gravity, and an advance of from 2 to 24 cents on 33 and above.

The new prices affect Caddo, Homer, Haynesville, Bull Bayou, Crichton, De Soto, El Dorado; also Cotton Valley beginning with 36-36.9 gravity. Cotton Valley crude below 36 is unchanged at 75 cents. Smackover and Bellevue crudes are unchanged.

This change was met immediately by the Louisiana Oil Refining Corp. and Gulf Refining Co. in fields where they purchase.

DALLAS—On Aug. 2 Magnolia Petroleum Co. posted for the first time prices on crude in the Rainbow pool in Arkansas. New prices are: below 24 gravity $0.78; 24-27.9, $0.85; 28-29.9, $1; 30-32.9, $1.15; 33 and above, $1.25.

* * *

SHREVEPORT, Aug. 2.—Atlantic Oil & Producing Co. reduced Stephens, Ark., heavy oil from 2 to 10 cents. The 32 and above grade is unchanged at $0.95. New prices are: below 28, 75 cents; 28-29.9, 79 cents; 29-29.9, 84 cents; 30-30.9, 87 cents; 31-31.9, 91 cents; 32 and above 95 cents.

On the same date the Louisiana Oil Refining Corp. met the above schedule.

* * *

SHREVEPORT, Aug. 4.—The Atlantic Oil Producing Co. met the new prices of the Standard Oil Co. of Louisiana in the Haynesville and West El Dorado fields.

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## *Every Day—*

**On every corner—competition is striving to lure your customers away. Any feature that makes for quicker, smoother, better service helps to get customers and HOLD them. The New Korect Air does this!**

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KA-5

## *The Nozzle Turns—*

**so that the scale is always in sight no matter what the position of the tire valve. It fits any type of wheel and keeps the hands away from dirty wheels and ground.**

# Crude Oil Prices (in Effect Aug. 6)

*(Crude prices for years 1924-1925-1926-1927 in OIL PRICE HANDBOOK published annually)*

### GULF COASTAL

**Prices of The Texas Co.**

Effective March 14, 1927

| | |
|---|---|
| Grades A.....$1.20 | *Grades B.....$1.15 |
| ‡Grades B (light crude): | |
| 35-35.9.....$1.37 | 38-38.9.....$1.43 |
| 36-36.9..... 1.39 | 39-39.9..... 1.45 |
| 37-37.9..... 1.41 | 40 and above... 1.47 |

*Grades B include all heavy crudes which do not meet tests for Grades A or for Gulf Coast light crude.

‡The Texas Co.'s gravity and price schedule on oil below 35° is same as Humble's postings on Grades B.

### ROCKY MOUNTAIN FIELDS

**Prices of Ohio Oil Co., and Midwest Refining Co.**

(Salt Creek prices effective July 26, 1928)

| | |
|---|---|
| ‡Salt Creek 29-29.9 | $0.95 |
| " " 30-30.9 | 1.02 |
| " " 31-31.9 | 1.09 |
| " " 32-32.9 | 1.16 |
| " " 33-33.9 | 1.21 |
| " " 34-34.9 | 1.26 |
| " " 35-35.9 | 1.31 |
| " " 36-36.9 | 1.36 |
| " " 37 and above | 1.41 |
| Elk Basin | 1.48 |
| Grass Creek light | 1.48 |
| Big Muddy | 1.33 |
| Lance Creek | 1.48 |
| Rock Creek | 1.33 |
| Mule Creek | 1.10 |
| Rex Lake | 1.10 |
| ‡Osage | 1.48 |
| ‡Cat Creek, Mont | 1.48 |
| Sunburst, Mont | 1.65 |
| ‡Hogback, N. Mex | 1.48 |
| Artesia, N. Mex | 1.08 |

‡Posted by Midwest Refining Co. Midwest also buys Grass Creek light and Elk Basin.

### CALIFORNIA

**Standard Oil Co. of California**

**Santa Maria and Ventura Posted by Union Oil Co.**

| Gravity | Signal Hill Seal Beach Alamitos Heights Huntington Beach | Inglewood Torrance | Whittier La Habra | Newhall, McKittrick, Kern River | Olinda-Brea Canon, Richfield | Athens-Rosecrans Dominguez | Montebello | Coyote Hills | Santa Fe Springs | Midway Sunset Buena Vista & Elk Hills | Lost Hills | Coalinga | Wheeler Ridge | Santa Maria | Ventura |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 14-14.9 | $ .85 | $ .85 | $ .85 | $ .75 | $ .85 | .... | $ .85 | $ .85 | .... | $ .75 | $ .75 | $ .75 | $ .75 | $ .85 | $ .85 |
| 15-15.9 | .85 | .85 | .85 | .75 | .85 | .... | .85 | .85 | .... | .75 | .75 | .75 | .75 | .85 | .85 |
| 16-16.9 | .85 | .85 | .85 | .75 | .85 | .... | .85 | .85 | .... | .75 | .75 | .75 | .75 | .85 | .85 |
| 17-17.9 | .85 | .85 | .85 | .75 | .85 | .... | .85 | .85 | .... | .75 | .75 | .75 | .75 | .85 | .85 |
| 18-18.9 | .85 | .85 | .85 | .75 | .85 | .... | .85 | .85 | .... | .75 | .75 | .75 | .75 | .85 | .85 |
| 19-19.9 | .85 | .85 | .85 | .75 | .85 | .... | .85 | .85 | .... | .75 | .75 | .75 | .75 | .85 | .85 |
| 20-20.9 | .85 | .85 | .85 | .... | .85 | .... | .85 | .85 | .... | .77 | .77 | .76 | .76 | .85 | .85 |
| 21-21.9 | .86 | .86 | .85 | .... | .86 | .... | .85 | .86 | $ .85 | .79 | .79 | .77 | .77 | .85 | .85 |
| 22-22.9 | .87 | .87 | .85 | .... | .87 | .... | .85 | .87 | .85 | .81 | .81 | .78 | .78 | .85 | .85 |
| 23-23.9 | .88 | .88 | .... | .... | .88 | .... | .85 | .88 | .85 | .83 | .83 | .79 | .79 | .85 | .85 |
| 24-24.9 | .89 | .89 | .... | .... | .89 | $ .89 | .85 | .89 | .85 | .85 | .85 | .80 | .80 | .85 | .85 |
| 25-25.9 | .90 | .90 | .... | .... | .90 | .90 | .86 | .90 | .86 | .87 | .87 | .81 | .81 | .86 | .86 |
| 26-26.9 | .92 | .92 | .... | .... | .92 | .92 | .87 | .91 | .87 | .89 | .89 | .83 | .82 | .87 | .87 |
| 27-27.9 | .94 | .94 | .... | .... | .94 | .94 | .88 | .92 | .88 | .91 | .91 | .85 | .83 | .88 | .88 |
| 28-28.9 | .96 | .96 | .... | .... | .96 | .96 | .89 | .93 | .89 | .93 | .93 | .87 | .... | .89 | .89 |
| 29-29.9 | .98 | .... | .... | .... | .98 | .98 | .90 | .94 | .91 | .96 | .96 | .89 | .... | .91 | .91 |
| 30-30.9 | 1.00 | .... | .... | .... | 1.00 | 1.00 | .91 | .95 | .93 | .99 | .99 | .91 | .... | .93 | .93 |
| 31-31.9 | 1.03 | .... | .... | .... | .... | 1.03 | .... | .... | .95 | 1.02 | 1.02 | .93 | .... | .... | .95 |
| 32-32.9 | 1.06 | .... | .... | .... | .... | 1.06 | .... | .... | .97 | 1.05 | 1.05 | .95 | .... | .... | .97 |
| 33-33.9 | .... | .... | .... | .... | .... | 1.09 | .... | .... | .99 | 1.08 | 1.08 | .97 | .... | .... | .99 |
| 34-34.9 | .... | .... | .... | .... | .... | 1.12 | .... | .... | 1.01 | .... | 1.11 | .99 | .... | .... | 1.01 |
| 35-35.9 | .... | .... | .... | .... | .... | 1.15 | .... | .... | 1.03 | .... | .... | 1.01 | .... | .... | 1.03 |
| 36-36.9 | .... | .... | .... | .... | .... | 1.18 | .... | .... | 1.06 | .... | .... | .... | .... | .... | 1.06 |
| 37-37.9 | .... | .... | .... | .... | .... | 1.21 | .... | .... | 1.09 | .... | .... | .... | .... | .... | 1.09 |
| 38-38.9 | .... | .... | .... | .... | .... | 1.24 | .... | .... | 1.12 | .... | .... | .... | .... | .... | 1.12 |
| 39-39.9 | .... | .... | .... | .... | .... | 1.27 | .... | .... | 1.15 | .... | .... | .... | .... | .... | 1.15 |
| 40-40.9 | .... | .... | .... | .... | .... | 1.30 | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| 41-41.9 | .. | .... | .... | .... | .... | 1.33 | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| 42-42.9 | .... | .... | .... | .... | .... | 1.36 | .... | .... | .... | .... | .... | .... | .... | .... | .... |

*Union Oil Co. also purchases Long Beach Crude and is maintaining the same gravity and price schedule in that field as the Standard maintains in Signal Hill and Huntington Beach fields. The Union also buys and pays the same prices as the Standard in the Rosecrans-Dominguez fields, on gravities ranging from 14 degrees to and including 24.9 degrees and in Santa Fe Springs, on gravities ranging from 20 to and including 23.9 degrees.

# REFINERS' and COMPOUNDERS' SUPPLIES

Following are average market prices for materials used by refiners and compounders as effective the date shown.

### Refiners' Supplies

| | Aug. 6 | July 30 |
|---|---|---|
| Soda Ash light 58% bags, cwt. | $1.32 | $1.32 |
| Silicate of Soda 60 deg. drums, cwt. | $1.65 | $1.65 |
| Silicate of Soda 40 deg. tank cars, cwt. | $0.60 | $0.60 |
| Silicate of Soda 40 deg. drums, cwt. | $0.70-0.75 | $0.70-0.75 |
| Sal Soda wks. | $0.90 | $0.90 |
| Caustic Soda 76% solid, cwt. | $2.90 | $2.90 |
| Sulfuric Acid 60 deg. tank cars, f.o.b. shipping point per ton | $11.00 | $11.00 |
| Oleum 20%, fuming sulfuric, tank cars, wks. | $18.50 | $18.50 |
| Sulfur, flowers of, cwt. | $3.10-4.00 | $3.10-4.00 |
| Liquid Chlorine, tank cars, wks., lb. | 3.50-5.00 | 3.50-5.00 |
| Litharge, powdered, casks, cwt. | 8.75 | 8.75 |

### Compounders' Supplies

| | Aug. 6 | July 30 |
|---|---|---|
| **Vegetable Oils** | | |
| Linseed carloads, spot, lb. | 9.90 | 10.00 |
| Tanks, spot | 9.10 | 9.20 |
| Soya Bean, Tanks, coast, lb. | 9.50-9.75 | 9.50-9.75 |
| **Oleic Acid** | | |
| Distilled, tanks, lb. | 9.00 | 9.00 |
| Distilled, bbls., lb. | 9.75 | 9.75 |
| Saponified, tanks, lb. | 9.25 | 9.25 |
| Saponified, bbls., lb. | 10.00 | 10.00 |
| **Lard Oils** | | |
| Prime Winter Strained, lb. | 16.25 | 16.25 |
| Extra Winter Strained, lb. | 13.00 | 13.00 |
| Extra, lb. | 12.50 | 12.50 |
| Extra No. 1, lb. | 12.25 | 12.25 |
| No. 1, lb. | 11.50 | 11.50 |
| No. 2, lb. | 10.75 | 11.25 |
| Tallow oil, lb. | 11.375 | 11.375 |
| **Neatsfoot Oil** | | |
| Pure, bbls., lb. | 15.25 | 15.25 |
| Extra, bbls., lb. | 12.50 | 12.50 |
| No. 1 bbls., lb. | 11.75 | 11.75 |
| Cold Pressed, lb. | 18.50 | 18.50 |
| **Fish Oils** | | |
| Menhaden Oil | | |
| Light Pressed, gal. | 62-64 | 62-64 |
| Light Pressed, tank cars, N. Y., gal. | 54-56 | 54-56 |
| White bleached, gal. | 68-70 | 68-70 |
| Yellow bleached, gal. | 66-68 | 66-68 |
| Whale, extra winter bleached, gal. | 82 | 82 |
| **Naval Stores** | | |
| Steam distilled turpentine, N. Y., gal. | 52 | 52 |
| Steam distilled turpentine, Savannah, gal. | 47 | 47 |
| Gum turpentine, N. Y., gal. | 54 | 55 |
| Gum turpentine, f.o.b. cars Savannah, gal. | 50 | 51 |
| Wood Rosin F, N. Y., bbl. | $8.30 | $8.30 |
| Wood Rosin F, Savn'h, bbl. | $7.50 | $7.50 |
| Gum Rosin B, N. Y., bbl. | $8.95 | $8.90 |
| Gum Rosin B, f.o.b. cars Savannah, bbl. | $8.20 | $8.15 |
| Rosin oil, pure, gal. | 57 | 57 |
| Rosin oil, compounded, gal. | 47 | 47 |
| **Pine Tar** | | |
| Kiln burnt, bbl. | $12.50-14.00 | $12.50-14.00 |
| Retort, bbl. | $13.50-15.50 | $13.50-15.50 |
| **Alcohol** | | |
| Denatured, Formula 5, in bbls., per gal. | 52-56 | 52-56 |

*Nominal.

# Foreign Buyers Loath to Accept Present Gulf Market Prices

Staff Special
NEW YORK, Aug. 4

A TWO weeks' lull in foreign activity at the Gulf was broken when a French buyer entered the market at the end of this week for a large cargo of gasoline and kerosene for September shipment.

Advancing prices in times past have served as a cue to French buyers to cover on their nearby requirements. In the recent rising market they have held off for approximately two weeks. According to cable advices from abroad, it has been hard for foreign buyers to believe that prices have actually gone up as far as they have and there has been a general feeling over there that prices at the current high levels were too "phenomenal" to last very long.

"Most certainly the Frenchman's reluctance about buying," one important export supplier said late this week, "is not due to the fact that stocks abroad are large, nor to the fact that any excessive amount of material has been purchased for delivery in the next few weeks."

A strictly nominal gasoline market has prevailed at the Gulf for gasolines the past 15 days. The week of July 16, 9.625 cents was paid for U. S. Motor and 11.50 cents for 64-66, 375 end point gasoline. Since that time quotations have jumped about 0.25-cent every four or five days, until now a majority of suppliers ask 10.50 cents for U. S. Motor and several indicate they will have to get 12.50 cents for 64-66 before they will be willing to talk business.

The absence of transactions at the intervening levels makes it even more baffling to foreign buyers.

To the foreigner, the foregoing prices look out of line when he recalls what he was paying a year ago, but to export suppliers they are still below what replacements in the field would cost them. With U. S. Motor quoted at 9.625 cents in north Texas, cost at the Gulf, with a 1.35-cent freight rate, figures 10.975 cents, with no allowance for terminating, evaporation, etc.

The export trade is hoping the French inquiry circulated through the market Aug. 3 will be closed in the United States, if for no other reason than that it will establish something in the nature of definite going prices.

There has been some fear that it might be placed either in Russia or Roumania, but this fear was dispelled on receipt of advices from Paris Saturday that suppliers in these districts would be unable to supply any more than 10,000 barrels of gasoline before the early part of November.

The inquiry from the French company, a subsidiary of a leading U. S. refiner, specifies approximately 45,000 barrels of 61-63, 390 end point and 64-66, 375 end point gasoline, together with approximately 30,000 barrels of prime white kerosene. The Black Sea district easily would be able to supply the kerosene, but its gasoline market is comparatively narrow. Two cargoes purchased by a Roumanian buyer week before last absorbed practically all gasoline available for fairly prompt delivery.

For the most part export suppliers gave the following as their ideas of gasoline prices at the close of the week: U. S. Motor, 10.50 cents; 61-63, 390 end point, 11.50 to 11.75 cents; 64-66, 375 end point, 12 to 12.50 cents.

In some quarters, kerosene was reported available in fair volume at the Gulf. Sellers in these instances gave 6.25 cents and 7.25 cents as their ideas of prices for prime white and water white, respectively. In other quarters, kerosene was reported as scarce as gasoline. These companies, depending largely upon the Mid-Continent for replacements, asserted they would have to get 6.50 cents and 7.50 cents, if not more. Fall demand for kerosene also is expected to stiffen the kerosene market considerably.

Gas oil was in fair supply at the Gulf. Foreign demand, which has been a shade more active recently, subsided somewhat the past week. Low gravity cracked gas oil was offered at 3.875 cents, while 30-32 uncracked goods was held at 4 cents.

Fuel oil quotations were lower. Grade C in cargoes was offered at $0.70 to $0.75 a barrel and bunkers were available at $0.85 to $0.95 a barrel.

# Natural Gasolines Are Higher In California

LOS ANGELES, Aug. 4

THERE were no actual changes in the prices of petroleum products in California during the past week except on natural gasoline, which was about half a cent higher, due to scarcity of the spot product.

Gasoline for export is quiet, with old prices holding. In some quarters it is said that California U. S. Motor should sell at 8.50 to 8.75 cents to balance prices effective at the Gulf. Most sellers were asking 9 cents. Although no sales were reported, it is understood a cargo or two could be secured for East Coast shipment at 8.50 to 8.75 cents. Other grades of gasoline, 390 and 400 end point, are being held at about half a cent above U. S. Motor. Most of the gasoline shipped to foreign destinations is of this grade.

Gasoline in tank cars holds at 9 to 12.50 cents without tax, with the low figure confined to one local refiner of the independent class, for shipments outside of the state into competitive territory. It is estimated that a major portion of the gasoline moving from Los Angeles plants in tank cars is selling at 10 to 11 cents.

Fuel oil continues sluggish, with little moving except under long time contracts. The fuel situation is no worse to say the least. Storage facilities continue ample for present and immediate needs.

Natural gasoline is showing strength as the spot supply grows less. Recently several contracts over a period were closed at a figure that nets the manufacturer around 6.50 to 7 cents, and this week it was found that the spot supply was being absorbed at approximately the contract figure. There is little likelihood of the production of natural gasoline showing any further increase for at least four to five months. The peak of natural gasoline production at Long Beach has probably been reached, and the wells just starting at Santa Fe Springs cannot be expected to furnish much new gas for several months.

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### Gulf Coast Lubricants Higher

HOUSTON, Aug. 4.—Gulf Coastal lubricants prices are moving in narrower ranges, with minimum quotations a quarter of a cent higher than a week ago. Better demand from jobbers, and in some cases reduced plant runs by maunfacturers, have resulted in a tighter sales situation than previously prevailed. The new prices, it is generally reported, are being well maintained.

# Week's Price Changes Tank Wagon Markets

### Gasoline Changes

**Standard of New Jersey**—T.w. price gasoline advanced 1 cent throughout territory, except state of New Jersey, Aug. 6. S.s. price unchanged. T.w. price now 17 cents. Differential between t.w. and s.s. price now 2 cents, instead of 3, as formerly.

**Atlantic Refining**—T.w. and s.s. prices gasoline advanced 1 cent, New England, **July 27.** This makes new t.w. price 18 cents generally, exclusive of state taxes.

**Standard of Kentucky**—T.w. and s.s. prices gasoline advanced 1 cent generally through Georgia, Alabama, Mississippi and Florida, except Savannah, Jacksonville, Pensacola and Tampa which were advanced 2 cents, **July 30.** Last previous change was 1 cent advance on **May 7.**

**Standard of Indiana**—T.w. and s.s. prices gasoline advanced 1 cent, through territory, **Aug. 1.** Last previous change was 2 cent cut on **May 10, 1927.**

**Standard of Nebraska**—T.w. and s.s. prices gasoline advanced 1 cent, through Nebraska, **Aug. 2.** Last previous change was irregular advance on April 12 to bring prices to normal.

**Standard of Ohio**—T.w. price only, of gasoline advanced 1 cent, through Ohio, to 18 cents, including 3 cent state tax, **Aug. 2.** S.s. price unchanged at 19 cents. Last previous change was 2 cent cut on Oct. 1, 1927.

**Standard of Louisiana**—T.w. and s.s. prices gasoline advanced 2 cents, Nashville, Tenn. to 19 cents and 21 cents respectively, including 3 cent tax, **Aug. 2,** and 2 cents at Knoxville, Tenn. to 20 and 22 cents the same date.

T.w. and s.s. prices gasoline advanced 1 cent generally in Louisiana and Arkansas Aug. 4, advanced 1 cent in Tennessee Aug. 6. The last previous change was an advance of one cent t.w. in Arkansas and 1 cent t.w. and s.s. in Louisiana last April.

**Magnolia Petroleum**—T.w. and s.s. prices gasoline advanced 1 cent generally, through territory, **Aug. 2.**

**Continental Oil**—T.w. and s.s. prices gasoline advanced 2 cents, through Colorado, and 1 cent, through Wyoming, **Aug. 1.** S.s. prices only of gasoline advanced 1 cent, Montana, Idaho and Utah, making 3 cent spread, Aug. 1.

T.w. and s.s. prices gasoline reduced 3 cents, Albuquerque, **July 26.**

### Kerosene Changes

**Standard of Indiana**—Kerosene prices advanced 1 cent generally through territory, **Aug. 1.** Last previous change was 1 cent cut on May 10, 1927.

**Standard of Nebraska**—Kerosene prices advanced 1 cent, through Nebraska, **Aug. 2.**

## Crude Output and Stocks Decrease in June

WASHINGTON, Aug. 2.—A reduction in production of crude oil and major refined products, and a reduction in stocks except kerosene and gas and fuel oils, took place in June, according to U. S. Bureau of Mines.

Crude production, which hit a high mark in May, decreased 2,692,000 barrels in June, to 72,526,000 barrels. Daily average of 2,426,400 barrels in May fell off 9400 barrels in June, to 2,417,000 barrels.

Crude stocks in pipe lines and tank farms east of California were 370,751,000 barrels on June 30, a decrease of 800,000 barrels under May 31 stocks. In California stocks increased 320,000 barrels, standing at 113,431,000 barrels on June 30. Total crude stocks for the country, therefore, decreased 480,000 barrels in June.

Gasoline production decreased 170,000 barrels in June, a 30-day month, to 30,675,000 barrels, but gained 28,000 barrels on daily average compared with May, a 31-day month.

Gasoline stocks fell off 2,943,000 barrels in June, standing at about 34,000,000 barrels on June 30.

Kerosene production decreased 394,000 barrels in June, to 4,849,000 barrels, while stocks increased 833,000 barrels, to 8,370,000 barrels.

Gas and fuel oil output was 35,565,000 barrels in June, a decrease of 55,000 barrels under May output. Stocks increased 3,421,000 barrels, standing at 130,249,000 barrels at the end of June.

Output of lubricants totaled 3,009,000 barrels, a decrease of 82,000 barrels, and stocks stood at 7,832,000 barrels, a decrease of 228,000 barrels from May.

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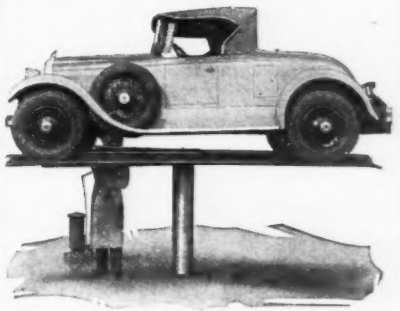
WICHITA, Kan.—J. B. Bradford of the Western Lubricating Co. here, was injured recently in an automobile accident while driving with Mrs. Bradford and their daughter. Mr. Bradford and his daughter are in the Wesley Hospital here. Mrs. Bradford escaped with slight injuries.

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# Complete Seaboard Market

***(Export markets for whole year given in OIL PRICE HANDBOOK. Each volume carries refinery, tank wagon, crude and export markets—complete for the years 1924-1925-1926-1927)***

## Eastern Domestic Market

**(Prices for tank car lots, f. o. b. refinery or seaboard terminal, represent majority of quotations and sales.)**

| | Aug. 6 | July 30 | July 23 |
|---|---|---|---|
| U.S. Motor gasoline, New York harbor | 11.25 | 11.25 | 10.75 |
| U.S. Motor gasoline, Philadelphia | 11.25 | 11.25 | 10.75 |
| U.S. Motor gasoline, Boston district | *11.75 | *11.75 | *11.25 |
| U.S. Motor gasoline, Providence district | *11.75 | *11.75 | *11.25 |
| U.S. Motor gasoline, Baltimore | 11.25 | 11.25 | 10.75 -11.00 |
| U.S. Motor gasoline, Norfolk | 11.2 | 11.25 | 10.75 |
| U.S. Motor gasoline, Charleston | 11.0 | 11.00 | 10.50 |
| U.S. Motor gasoline, Savannah | 10.75 | 10.75 | 10.25 |
| U.S. Motor gasoline, Jacksonville | 10.75 | 10.75 | 10.25 |
| California U.S. Motor gasoline, New York Harbor | 11.25 | 11.25 -11.50 | 11.00 |
| California U.S. Motor gasoline, Baltimore | 11.25 | 11.25 | 11.00 |
| California U.S. Motor gasoline, Philadelphia | 11.25 | 11.25 | 10.75 |
| Water white kerosene, New York Harbor | 7.50 - 8.00 | 7.50 - 8.00 | 7.50 - 8.00 |
| Water white kerosene, Philadelphia | 7.75 - 8.00 | 7.75 - 8.00 | 7.75 - 8.00 |
| Water white kerosene, Baltimore | 7.50 - 8.00 | 7.50 - 8.00 | 7.50 - 8.00 |
| 28-34 gas oil, New York harbor | 5.00 | 5.00 | 5.00 |
| 28-34 gas oil, Boston district | 4.75 - 5.00 | 4.75 - 5.00 | 4.75 - 5.00 |
| 36-40 furnace oil, New York harbor | 6.00 | 6.00 | 6.00 |
| 36-40 furnace oil, Boston district | 6.25 | 6.25 | 6.25 |
| Grade C bunker oil, New York harbor | $1.05 | $1.05 | $1.05 |
| Grade C bunker oil, Boston district | $1.10 | $1.10 | $1.10 |
| Diesel oil, New York harbor | $2.00 | $2.00 | $2.00 |

Note: Above prices do not include inspection tax levied in some states.
*Minimum of 13c delivered.

**MEDICINAL OILS**

| | | | |
|---|---|---|---|
| Russian 885-890 s.g., 325-330 vis | $0.80 - 0.90 | $0.80 - 0.90 | $0.80 - 0.90 |
| Russian 870-875 s.g., 150-155 vis | $0.67 - 0.77 | $0.67 - 0.77 | $0.67 - 0.77 |
| Russian 860-865 s.g., 80-85 vis | $0.65 - 0.75 | $0.65 - 0.75 | $0.65 - 0.75 |

## New York Export Market

**(Gasoline and kerosene in cases in bulk. Lubricating oils are per gal. in bbls. Cylinder oils are Penna. products.)**

| | Aug. 6 | July 30 | July 23 |
|---|---|---|---|
| U. S. Motor gasoline | 26.90 | 26.90 | 26.40 |
| 43-45 150 w.w. kerosene | 18.40 | 18.15 | 18.15 |
| 42-44, 110 s.w. kerosene | 17.40 | 17.15 | 17.15 |
| **CYLINDER OILS** | | | |
| Bright stock, dark | 40.00 -42.00 | 40.00 -41.00 | 40.00 -41.00 |
| 600 D filtered | 30.00 -32.00 | 30.00 -32.00 | 30.00 -32.00 |
| 600 Warren E filtered | 25.50 | 24.50 -25.50 | 24.50 -25.50 |
| 600 s.r. unfiltered | 20.00 | 19.00 -20.00 | 19.00 -20.00 |
| 650 s.r. unfiltered | 22.00 | 21.00 -22.00 | 21.00 -22.00 |
| 600 flash s.r. | 25.00 -26.00 | 24.00 -26.00 | 24.00 -26.00 |
| 630 flash, s.r. | 34.00 -36.00 | 34.00 -36.00 | 34.00 -36.00 |
| **RED ENGINE OILS (Vis. 100°)** | | | |
| 300 vis. No. 6½ color | 19.50 | 19.50 | 19.50 |
| 250 vis. No. 6 color | 18.50 | 18.50 | 18.50 |
| 200 vis. No. 6 color | 18.00 | 18.00 | 18.00 |
| **PALE ENGINE OILS (Vis. 100°)** | | | |
| 230 vis. No. 3¾ color | 23.50 | 23.50 | 23.50 |
| 180 vis. No. 3¼ color | 19.50 | 19.50 | 19.50 |
| 100 vis. No. 2¼ color | 15.25 | 15.25 | 15.25 |
| **MOTOR OILS (Vis. 100°)** | | | |
| 600 vis. No. 7 color | 34.50 | 34.50 | 34.50 |
| 500 vis. No. 6½ color | 32.50 | 32.50 | 32.50 |
| 400 vis. No. 7¼ color | 30.50 | 30.50 | 30.50 |
| 300 vis. No. 6 color | 29.50 | 29.50 | 29.50 |
| 200 vis. No. 3¼ color | 23.00 | 23.00 | 23.00 |
| **MEDICINAL OILS** | | | |
| 875-885 s.g. | $0.80 | $0.80 | $0.80 |
| 865-870 s.g. | $0.70 | $0.70 | $0.70 |

**WAXES (In cents per pound, f.a.s. carload lots)**
**WHITE CRUDE SCALE (In barrels)**

| | Aug. 6 | July 30 | July 23 |
|---|---|---|---|
| 122-124 A.m.p. | 4.50 - 4.75 | 4.50 - 4.75 | 4.375- 4.50 |
| 124-126 A.m.p. | 4.50 - 4.75 | 4.50 - 4.875 | 4.375- 4.50 |
| **FULLY REFINED (In burlap bags)** | | | |
| 123-125 A.m.p. Phila. | 5.125- 5.25 | 5.125- 5.25 | 5.00 - 5.125 |
| 125-127 A.m.p. | 5.125- 5.25 | 5.125- 5.25 | 5.00 - 5.125 |
| 128-130 A.m.p. | 5.375- 5.50 | 5.375- 5.50 | 5.25 - 5.375 |
| 130-132 A.m.p. | *6.00 - 6.125 | *6.00 - 6.125 | *6.00 |
| 133-135 A.m.p. | *6.625- 6.875 | *6.625- 6.875 | *6.50 - 6.75 |
| 135-137 A.m.p. | *7.125- 7.375 | *7.125- 7.375 | *7.00 - 7.25 |
| **YELLOW CRUDE SCALE** | | | |
| 124-126 A.m.p. | 4.25 - 4.375 | 4.25 - 4.375 | 4.25 - 4.375 |

***Prices nominal.**

## Gulf Export Market

**(Prices are f. o. b. Gulf oil terminals in Texas and Louisiana, shipments of 20,000 bbls. and over unless otherwise noted, representing sellers' opinions, except those prices specified to the contrary)**

| GASOLINE | Aug. 6 | July 30 | July 23 |
|---|---|---|---|
| U.S. Motor | 10.50 | 10.00 | 10.00 |
| 60-62, 400 e.p. | 11.00 | 10.75 -11.00 | 10.75 |
| 61-63, 390 e.p. | 11.50 -11.75 | 11.00 -11.25 | 11.00 |
| 64-66, 375 e.p. | 12.00 -12.50 | 12.00 | 11.75 -12.00 |
| U. S. Motor, cases (cargoes) | $1.95 | $1.90 | $1.90 |
| 64-66, cases (cargoes) | $2.10 | $2.05 | $2.05 |

***Sales only.**

| KEROSENE | | | |
|---|---|---|---|
| 44 water white | 7.25 - 7.50 | 7.25 | 7.25 |
| 41-43 prime white | 6.25 - 6.50 | 6.25 | 6.25 |
| Water white, cases (cargoes) | $1.65 | $1.65 | $1.65 |
| Prime white, cases (cargoes) | $1.55 | $1.55 | $1.55 |

***Sales only.**

| DOMESTIC GAS & BUNKER OILS | | | |
|---|---|---|---|
| *26-30 translucent gas oil. | 3.875- 4.00 | 3.875- 4.00 | 3.875- 4.00 |
| *30-32 translucent gas oil. | 4.00 | 4.00 | 4.00 |
| Grade C bunker oil | $0.85 -$0.95 | $0.95 - 1.10 | $0.95 - 1.10 |
| Grade C bunker oil, cargoes | $0.70 -$0.75 | $0.70 - 0.80 | $0.70 - 0.80 |

***Less than ½ of 1% sulfur.**

| MEXICAN CRUDE AND BUNKER OILS (F.O.B. Steamer, Tampico) | | | |
|---|---|---|---|
| Heavy Panuco crude taxes to be paid | $1.00 -$1.02 | $1.00 -$1.02 | $1.00 -$1.02 |
| Grade C bunker oil, for bunkering purposes, taxes paid | $1.10 | $1.10 | $1.10 |

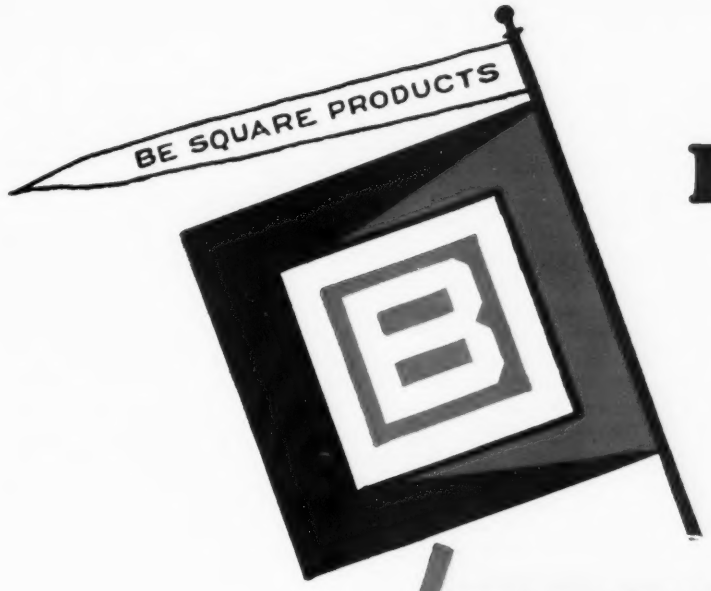
**SOUTH TEXAS LUBRICATING OILS (Viscosity at 100°F.; cold test 0) (Tanker, f.o.b. Houston)**

| | | | |
|---|---|---|---|
| 100 vis. No. 2 unfiltered pale | 5.75 - 6.00 | 5.75 - 6.00 | 5.75 - 6.00 |
| 200 vis. No. 3 unfiltered pale | 7.75 - 8.00 | 7.75 - 8.00 | 7.75 - 8.00 |
| 300 vis. No. 3 unfiltered pale | 9.25 - 9.50 | 9.25 - 9.50 | 9.25 - 9.50 |
| 500 vis. No. 3½ unfiltered pale | 10.50 -11.50 | 10.50 -11.50 | 10.50 -11.50 |
| 750 vis. No. 4 unfiltered pale | 12.50 -13.00 | 12.50 -13.00 | 12.50 -13.00 |
| 1200 vis. No. 5 unfiltered pale | 15.50 -16.00 | 15.50 -16.00 | 15.50 -16.00 |
| 200 vis. No. 5-6 red oil | 7.00 - 7.50 | 7.00 - 7.50 | 7.00 - 7.50 |
| 300 vis. No. 5-6 red oil | 8.00 - 8.50 | 8.00 - 8.50 | 8.00 - 8.50 |
| 500 vis. No. 5-6 red oil | 10.00 -10.50 | 10.00 -10.50 | 10.00 -10.50 |
| 750 vis. No. 5-6 red oil | 11.25 -11.50 | 11.25 -11.50 | 11.25 -11.50 |
| 1200 vis. No. 5-6 red oil | 14.50 -15.50 | 14.50 -15.50 | 14.50 -15.50 |

## Pacific Export Market

**(Quotations are at seaboard, Los Angeles, in cargo lots, cents per gallon, except where otherwise noted.)**

| | Aug. 6 | July 30 | July 23 |
|---|---|---|---|
| Gasoline, U. S. Motor, 53-55 Gravity | 8.50 - 9.00 | 8.50 - 9.00 | 8.25 - 8.50 |
| Gasoline, U. S. Motor, blends and special cuts | 9.00 - 9.50 | 9.00 - 9.50 | 8.50 - 9.00 |
| Gas Oil, 30-34, per barrel | $1.10 -$1.20 | $1.10 -$1.20 | $1.10 -$1.20 |
| Diesel Oil, 27 plus, per barrel | $0.95 -$1.10 | $0.95 -$1.10 | $0.95 -$1.10 |
| Bunker oil, 14-18, per barrel | $0.80 -$1.00 | $0.80 -$1.00 | $0.80 -$1.00 |
| Fuel oil, 14-18, per barrel | $0.70 -$1.00 | $0.70 -$1.00 | $0.70 -$1.00 |
| Kerosene, 38-40 w.w., 125-150 flash, per gal. | 4.50 - 5.00 | 4.50 - 5.00 | 4.50 - 5.00 |
| **Cased Goods** | | | |
| Gasoline, U. S. Motor | $1.75 -$1.85 | $1.75 -$1.85 | $1.75 -$1.85 |
| Kerosene, 38-40 w.w., 125-150 flash | $1.45 -$1.50 | $1.45 -$1.50 | $1.45 -$1.50 |

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General Sales Offices;
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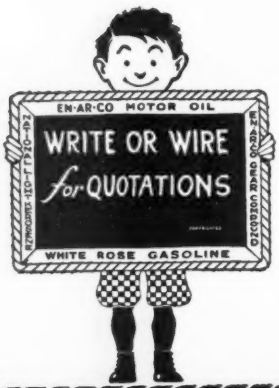


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All grades of lubricating oils and greases.

**The National Refining Co.**
Cleveland, Ohio

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**No. 369—A compact outfit. Folio made from heavy 5-oz. smooth black cowhide, with 5½-inch over-all expansion and three inner pockets. Inner case contains six 4-oz. bottles, displayed on a background of red velvet. Each bottle is partitioned separately. Case also contains five grease jars.**

*Less 10% for Cash*

*Other styles in our FREE Catalog*

**L-U-C-E**

*Builders of Sales Luggage*

614 Delaware, KANSAS CITY, MO.

# Tank Wagon Advance Stiffens Chicago Resale Market

Staff Special

CHICAGO, Aug. 4

THE gradual rise in the tank car price of gasoline was climaxed this week when Standard Oil Co. of Indiana advanced its tank wagon and service station prices of gasoline and kerosene 1 cent through its territory. This event has been awaited for some time by the oil trade, especially jobbers, who have found margins uncomfortably narrow during the recent weeks and, except where they were obtaining goods under contract, were selling at a loss to their larger dealer accounts.

Since May 10, 1927 no change has been made in the retail price of gasoline, except a minor change in the Quantity Discount Agreement on June 9, 1928. The reason for this tank wagon change, as given by Standard Indiana officials, was the advance in Mid-Continent crude oil prices and the lessening profits on industrial fuel oil.

Another interesting development of the week in Chicago was the fact that U. S. Motor gasoline brought 9.50 cents on the spot market. This is the first time since Jan. 7, 1927 that the OILGRAM has shown this figure in relation to this product. Through the intervening 18 months, U. S. Motor gasoline has ranged from 5.625 up to 9.50 cents, with the low point reached in January, 1928.

Prior to the S. O. Indiana tank wagon advance on Aug. 1, U. S. Motor had been selling mostly at 9 to 9.25 cents. Immediately after the announcement of the change most sellers withdrew their quotations and, coming back in the market, nearly all sellers advanced prices .25 to .50 cent. Sales were mostly at 9.50 cents the rest of the week, with enough made at 9.625 cents to be a market factor Aug. 4. Most resale agents in the city reported being unable to buy U. S. Motor gasoline under 9.50 cents for spot shipment, and several said they were unable to find any refiner quoting gasoline over August.

Movement of gasoline to the jobbing trade was heavy this week, with especially good demand reported prior to the tank wagon advance. A number of marketers and refiners reported business light during the closing days of the week. They believe jobbers anticipated the tank wagon advance and filled their storage. Other sellers reported both spot and contract business good all week.

A comparative scarcity of good gasoline for spot shipment has been noticeable for several days, the trade reported. While jobber buying has slackened somewhat it has been more than offset by several big refiners purchasing large quantities of gasoline for sale at their own stations and to fill orders to jobbers which they had previously booked. A number of refiners were accepting orders from their regular trade only, and in some cases were limiting orders to one and two cars per customer.

The high test gasoline situation was very unsettled this week. Few sellers had any material available for spot shipment and these were selling, in most cases, only to their regular customers. High test gasoline prices advanced approximately .25 to .50 cent immediately following the Indiana tank wagon advance. The 60-62, 437 e.p. gasoline opened at 9.125 to 9.25 cents, was at 9.25 to 9.375 cents Tuesday, at 9.625 to 9.75 cents Wednesday and sold mostly at 9.75 cents the rest of the week.

Gasolines of 60-62, 400 and 64-66, 375 e.p. grades were especially scarce and the prices shown this week represent both quotations and sales as not many sales were reported. The 60-62, 400 e.p. moved mostly at 9.375 to 9.50 cents Monday, at 9.50 to 9.625 cents Tuesday, 9.875 to 10.125 cents Wednesday and Thursday and closed Saturday at 10 to 10.125 cents. Gasoline of 64-66, 375 e.p. was mostly at 10 to 10.25 cents Monday, 10.25 cents flat Tuesday, 10.25 to 10.75 cents Wednesday and at 10.50 to 10.75 cents over the rest of the week.

Kerosene closed the week in a strong position. Demand from the jobbing trade was good and several refiners also were buying goods for their own trade. Reports were heard Saturday of some export buying of this commodity. Prices were up approximately .50 cent during the week. The 1-cent advance in tank wagon price Aug. 1, was the big factor in the price advance although a steady upward movement was in evidence before the change.

Most sales of 41-43 w.w. kerosene were at 5 to 5.25 cents Monday, at 5.25 cents flat Tuesday, and were up .25 cent to 5.50 cents flat Wednesday. Most sales were at 5.50 cents the rest of the week although enough goods moved at 5.625 cents Saturday to be a factor in the market.

Most sellers in the Chicago market reported a better demand and increased strength on the heavy oils. Gas oil was in demand for cracking and was up fractionally in price. Industrial concerns were in the market for August requirements and many of the trade entertained the opinion that the fuel oil market had "hit bottom."

Most sales of 38-40 straw distillate

were at 3 to 3.125 cents after Wednesday with the bulk of the movement at 3 cents flat as the week opened. Ordinary dark 32-36 gas oil opened at 2.50 cents flat and was at 2.50 to 2.625 cents Wednesday, when several sellers advanced their price. No change was apparent in 32-36 dark and straw zero gas oils at 2.625 cents flat and 2.625 to 2.75 cents respectively.

Prices of fuel oils were generally unchanged over the week. Fuel of 28-30 gravity was $0.80 to $0.85. Both 24-26 and 22-26 sold at $0.625 to $0.675 all week. The 18-22 fuel oil continued to sell mostly at $0.525 to $0.625, although the low priced grades were not as freely offered as previously. Quotations on Smackover treated fuel continued around $0.80 to $0.85 most of the week with most of them at $0.825 in the closing days.

Shower periods are likely in Standard of Indiana territory during the first and again at the closing days of next week, according to the Chicago weather bureau. Temperatures will remain near normal most of the week, with a tendency towards cooler weather at the close.

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### Kennedy Is Boston Manager

BOSTON, Aug. 4.—James A. Kennedy, who has held various positions with the Sinclair Refining Co. during the past five years, and most recently in charge of bulk sales in New York state, has been promoted to resident manager at Boston. He will have charge of the entire New England states. He succeeds E. L. Wolfe, who recently resigned to start in the oil business as Sinclair distributor in Brockton, Mass.

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### Patterson Leaves Bartles-Maguire

CHICAGO, Aug. 4.—L. B. Patterson, in charge of the tank car marketing department of Bartles-Maguire Oil Co., has resigned effective Sept. 1. He is being succeeded by H. J. Dolan, formerly of the company's Milwaukee office. Mr. Patterson has not made known his personal plans. He has been an active participant in the Chicago resale market for about six years, being first with the Northland Oil Co. and later with Acme Petroleum Co.

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### Cowden Visits Italy

WARREN, Aug. 2.—Mark Cowden, president of the Pennsylvania Oil Products Refining Co., who is travelling in Europe, is in Italy this week, and will go to Switzerland next week.

# THE OIL INDUSTRY EXCHANGE

## *Positions Wanted*

**DESIGNING DRAFTSMAN** with 10 years oil refinery experience, desires permanent connection with growing concern. References. Now employed. Address Box 147.

**REFINERY SUPERINTENDENT,** eighteen years experience, thoroughly familiar with designing, construction and operation of modern skimming, lubricating and cracking plants. Address Box 129.

**DESIRES NEW CONNECTION AS SUPERINTENDENT OR MANAGER.** Young married man 39 years of age, college graduate, at present employed, twelve years experience with all modern refining methods—continuous, high pressure, and vacuum distillation, batch and continuous treating. Familiar with manufacturing and selling of all industrial oils and greases. Address Box 140.

## *Situations Open*

**EFFICIENCY MAN WANTED,** with practical experience in production, refining oil, to be personal representative of president of a large oil company. Give experience and reference. Address Box 144.

**LUBRICATION SALES-ENGINEER WANTED**

Experience in application of petroleum products, to industrial uses and all types of machinery; for cooperative work with Sales Dept. in Pennsylvania, Southern New Jersey, Maryland area. Only man with broad previous experience considered. Give complete details of education and experience.

Address Box 141

**LUBRICATING SALESMAN WANTED**

Experienced salesman, preferably one who knows bulk jobbing trade in New York and New England states and is thoroughly familiar with zero cold test lubricating oil sales in tank cars.

Address Box 146

**CAPABLE EXECUTIVES, EARNING LARGE SALARIES**

But meriting more, will profit by investigating our confidential, successful, placement service. Name only necessary.

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**PRINTED FILLING STATION REPORT FORMS** at low prices. Keep a perpetual inventory of accessories and everything in your filling station by this accurate short cut system. George H. Blood, Jr. Marlboro, Mass.

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# "Everybody Happy!"

You see nothing but smiles 'round a Tokheim-equipped filling station.

The boss is happy because he's getting the business---and because he knows he's giving his customers *full measure.*

The *operators* are happy because their work is made *easy* with Tokheim Equipment.

QUALITY TOKHEIM

## Cut 660 Hand Operated 10 Gallon Visible Pump

makes *customers* happy because they see what they get and get *all* they see . . . and get it speedily.

*Refiners and Marketers* are happy too, because full measure dispensing upholds the mileage reputation of their gasoline.

### 100% Accurate Million Gallon Recording Meter

Like a cash register, this meter protects both the dealer and his customers. It is operated positively and mechanically by a cogged rack on the Pre-determined Quantity Discharge Tube---not by the flow of gasoline.

*A dispenser that will be up to date for years to come!*
*SEND FOR BULLETIN!*

**Tokheim Oil Tank & Pump Co.**
**Fort Wayne, Indiana**

## TOMORROWS PUMP TODAY!

# Committees Named to Arrange Events at Exposition

TULSA, Aug. 6

SPECIAL train plans and hotel reservations indicate that the attendance at the International Petroleum Exposition, Oct. 20-29, will be decidedly above that at former expositions. Something over 90 per cent of the exhibit space at the exposition is sold. Hotels report an exceptional demand for large headquarters space, it is announced.

The city will have two large new hotels for the exposition period and the local committee anticipates all rooms will be in demand.

There are tentative plans for special trains from New York, the Pennsylvania fields, Pittsburgh, Cleveland, possibly Chicago, Shreveport, Houston, San Angelo, Los Angeles and probably a Wyoming city.

Meeting places are to be arranged for the state geologists, mining and metallurgical engineers, safety associations, gas associations and numerous trade and professional conferences. The largest social event so far planned is the International Rotary dinner, with Harry H. Rogers of Tulsa as a principal speaker.

Local facilities generally will be far better than before, said J. Burr Gibbons, general manager of the exposition. At the grounds there is great activity in getting down the concrete walks, the parking space, the creation of additional space for outdoor exhibits, the rest rooms, offices, Red Cross headquarters, street car and bus stations and other facilities. The exposition buildings will have adequate telephone trunk lines this year. Additional water, gas and electric lines have been secured. Something over $30,000 is being spent for betterments.

An elaborate scientific display is planned. The general lines will be the same as at the last exposition year, with important additions in sections. The museum feature will be large.

In the outdoor section there will be at least 12 large derricks. The larger engine and supply companies generally have taken increased space.

President W. G. Skelly said he expects a largely increased foreign attendance, due to more definite interest abroad and to the sending of invitations by the United States government.

A. W. Ambrose, chairman of the petroleum division of the American Mining and Metallurgical Engineers, has announced two features for the annual meeting at Tulsa in connection with the International Petroleum Exposition. Both are on subjects of practical concern in operations.

Morgan Walker, petroleum engineer of the Amerada Petroleum Corp., will read a paper on gas-lift. The findings are based on actual experience in wells in the Seminole district. The principal items are grouping of wells for intermittent flowing and methods of determining the most economical time interval.

F. G. Tickell, professor of petroleum engineering, Sanford University, has prepared a paper on "Capillary Phenomena as Related to Oil Production." He discusses the conditions in the oil reservoir that have relation to rate of production and ultimate recovery.

The sessions of the mining and metallurgical engineers will be held Oct. 18 and 19, immediately preceding the opening of the exposition.

The committees in charge of preparations for the exposition are:

**Special Trains Committee**

A. F. Winn, chairman, Skelly Oil Co.
Charles E. Bowles, Chamber of Commerce.
James H. Gardner, Gardner Petroleum Corp.
Clark Field, Field Stationary Co.
Clarence Morris, Oil & Gas Journal.
B. E. Horrigan.

**Exposition Program Committee**

J. M. Hayner, chairman, Hayner Royalty Co.
Charles Dimit, Gypsy Oil Co.
Frank Hinderliter, Hinderliter Tool Co.

**Official Opening Ceremony Committee**

Ralph Talbot, chairman, Chamber of Commerce.
Charles O'Conner, Attorney.
W. H. Bagley, Oklahoma Natural Gas Co.
Victor Barnett, Tulsa Tribune.
Lawrence J. Smith, National Petroleum News.

**Old Timers Committee**

B. E. Horrigan, chairman.
A. W. Leonard, Devonian Oil Co.
Glenn Condon, Skelly Oil Co.
A. J. Rowley, Oil and Gas Journal.
F. W. Larson, Tulsa World.

**Safety and Contests Committee**

Don Wallace, chairman, Safety Division, Mid-Continent Oil & Gas Association.
A. F. Bourne, Oklahoma Iron Works.
Rodney Quinby, Burroughs Adding Machine Co.
E. B. Murphy, Mid-Continent Petroleum Corp.
J. F. Carter, Oil Weekly.
Ray E. Miller, Marland Oil Co., Ponca City.
George Bunn, Phillips Pet. Co., Bartlesville.
C. L. Swim, Tulsa Safety Council.
Victor Hayslip, Humble Oil & Refining Co., Houston, Texas.
R. L. Dowden, Oklahoma Natural Gas Corp.

**Housing and Validating Committee**

Harry Gale, chairman, Producers Nat'l Bank.
Fred Insull, Public Service Co.
J. M. Hayner, Hayner & Reaves.
A. V. Borgue, Natural Gasoline Association of America.
W. C. Franklin, Tidal Oil Co.
D. W. Moffitt, Mid-Continent Petroleum Corp.
John Mayo, Mayo Hotel.
Henry Ketchum, Hotel Tulsa.
Charles E. Bowles, Chamber of Commerce.
J. L. Davis, Mincks Hotel.

**Scientific and Technical Exhibits Committee**

Alf G. Heggem, chairman, Oil Well Improvements Co.
Charles N. Gould, Oklahoma Geological Survey.
Frank C. Green, Roxana Petroleum Co.
Luther H. White, J. A. Hall Oil Corp.
L. L. Foley, Tulsa Geological Society.
Sidney Powers, American Petroleum Co.
W. L. Foster, Tulsa University.
Dr. Van der Holst Pellekaan, Roxana Petroleum Co.
R. S. McFarland, American Association of Petroleum Geologists.
J. H. Gardner, Gardner Pet. Co.
Dr. C. K. Francis, Oil and Gas Journal.
Earl Trager, Skelly Oil Co.
R. C. Beckstrom, Tulsa University.

## George White Favors Tariff on Crude

Cleveland, Aug. 4.—Tariff on crude oil was urged by George White, Marietta, former chairman of the Democratic National Committee, at a meeting of the Southeastern Oil & Gas Producers' Association July 26 at Cambridge, O. Mr. White is not a tariff advocate; his party affiliation and the high position he held in it attest to that.

Mr. White who also is a director of the Tide Water Associated Oil Co., presented statistics to show that above ground stocks of crude oil and stocks of gasoline were being diminished. He urged the tariff as a relief measure for producers in the older fields whose income has dwindled and profits often vanished, because of overproduction in flush pools. A tariff would protect the small producers against a flood of low priced foreign crude oil.

O. C. Dunn, also of Marietta, favored building a refinery in southeastern Ohio to run crude from nearby pools.

"As it is today," Mr. White said, "the producer is helpless working in a most hazardous business from the standpoint of investment and risk with not even a fair margin of profit. The refinery if located in this district, would be situated most advantageously, would have the necessary crude available and the products could be marketed within a small radius at a minimum of expense, producing a lubricant and gasoline of 'superior quality,' made from 'The Highest Grade Oil in the World.' "

Bryce Browning, secretary of the Zanesville Chamber of Commerce, urged that a refinery be built in that city.

Other speakers were: F. H. Ward, Woodsfield, a producer and Democratic floor leader of the Ohio house of representatives; E. J. Mildren, Marietta; T. R. Green, Buckeye Pipe Line Co., and A. E. Faine, New Straitsville.

O. D. McPherson, Marietta, was elected chairman of the association's tax committee.

# Transactions in Oil Shares on New York Stock Exchange

| 1927 High | 1927 Low | 1928 High | 1928 Low | Listed Capital | Par Value | Stocks | Div. Rate | Last Paid | Transactions Week Ended Aug. 4 Sales | First | High | Low | Last | Change |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 37⅞ | 27⅝ | 38 | 27⅛ | (sh) 922,075 | N.P. | Amerada Corp. | 50cQ | July 31, 28 | 4,200 | 30⅞ | 32⅜ | 30¾ | 32¼ | + ¼ |
| 82½ | 35⅛ | 85 | 51¾ | (sh) 209,180 | N.P. | American Republics Corp. | | | 11,300 | 62⅛ | 64¾ | 61¾ | 62¾ | + 2⅜ |
| 50¼ | 35 | 46⅞ | 37½ | $56,000,000 | $ 25 | Associated Oil | 50cQ | June 30, 28 | 180 | 44½ | 46 | 44½ | 44¾ | + ¾ |
| 131⅜ | 104 | 169½ | 95¾ | 50,000,000 | 100 | Atlantic Refining | $1Q | June 15, 28 | 135,600 | 148 | *169½ | 147 | 160 | +10½ |
| 119 | 115½ | 118¼ | 115 | 20,000,000 | 100 | do pfd | $1.75Q | Aug. 1, 28 | | | | | | |
| 35½ | 20¾ | 26⅞ | 20⅛ | 28,725,675 | 25 | Barnsdall Corp. A | .... | Feb. 6, 28 | 33,600 | 23½ | 24⅜ | 23½ | 24⅛ | + 1 |
| 32½ | 20½ | 27¼ | 22 | 799,775 | 25 | do B | .... | Feb. 6, 28 | | | | | | |
| 18¼ | 14 | 20¼ | 12¼ | 945,888 | N.P. | Beacon Oil | | | | | | | | |
| 32⅞ | 20 | 32¾ | 24 | 51,524,150 | 25 | California Petroleum | 25cQ | July 2, 28 | 600 | 30⅜ | 31⅝ | 30⅛ | 31⅝ | + 1⅝ |
| 96¾ | 65 | 94⅞ | 70 | 20,785,400 | 100 | General Asphalt | | | 12,800 | 74¼ | 75 | 72½ | 74 | 0 |
| 144⅞ | 107¼ | 141½ | 111 | 6,792,200 | 100 | do pfd | $1.25Q | June 1, 28 | 500 | 115½ | 116 | 112¼ | 115 | — 1 |
| 175¾ | 60¼ | 167 | 127 | 25,000,000 | 100 | Houston Oil | .... | | 33,900 | 133 | 141¾ | 129⅞ | 137¼ | + 4½ |
| 32¾ | 17⅝ | 31⅞ | 21¾ | (sh) 500,000 | N.P. | Independent Oil & Gas | 25cQ | July 31, 28 | 6,400 | 23⅞ | 25¾ | 23½ | 25⅛ | + 1½ |
| 12⅛ | 7⅝ | 39⅝ | 9 | $3,280,340 | $10 | Indian Refining | .... | Dec. 15, 20 | 128,100 | 31⅜ | 37 | 31 | 34¾ | + 4⅛ |
| 12 | 7¼ | 37¼ | 8½ | 4,550,110 | 10 | do ctfs | .... | | 80,800 | 28⅜ | 32¾ | 28 | 31½ | + 2⅞ |
| 112 | 99 | 238 | 101 | 2,296,400 | 100 | do pfd | | Dec. 15, 21 | 2,200 | 210 | *238 | 210 | 238 | +28 |
| 37¾ | 20½ | 39⅛ | 27⅜ | (sh) 3,992,122 | N.P. | Lago Oil & Transport | 75cQ | May 1, 28 | 500 | 31½ | 33¼ | 31 | 33 | + 1 |
| 18¼ | 10 | 19¾ | 9⅜ | (sh) 1,237,078 | N.P. | Louisiana Oil Refining | | | 20,600 | 14½ | 15⅜ | 14 | 14¾ | + ¼ |
| 97 | 85¼ | 101 | 78 | $4,000,000 | $100 | do pfd | $1⅜Q | Aug. 15, 28 | 20 | 90¾ | 90¾ | 90⅝ | 90¾ | + 7⅜ |
| 22¾ | 12 | 25½ | 12½ | (sh) 330,000 | N.P. | Maracaibo Oil | .... | | 1,700 | 17 | 18½ | 17 | 17¾ | + ⅛ |
| 58½ | 31 | 44½ | 33 | (sh) 2,316,692 | N.P. | Marland Oil Co. | .... | Mar. 31, 27 | 24,000 | 35¾ | 38⅜ | 35½ | 38⅜ | + 2½ |
| 320 | 200 | 360 | 250 | $45,942,800 | $100 | Mexican Petroleum | $3Q | July 20, 28 | | | | | | |
| | | | | 12,000,000 | 100 | do pfd | $2Q | July 20, 28 | | | | | | |
| 9¼ | 3 | 39 | 4⅝ | (sh) 945,939 | N.P. | Mexican Seaboard | .... | Nov. 15, 24 | 61,000 | 26¼ | 28½ | 24⅞ | 29⅜ | + 2⅛ |
| 39⅜ | 25½ | 33¼ | 25⅛ | (sh) 1,357,461 | N.P. | Mid-Continent Petroleum | | Aug. 1, 27 | 19,900 | 30⅛ | 31 | 29⅛ | 31 | + 1¾ |
| 105 | 97 | 115¼ | 103¼ | $6,718,000 | $100 | do pfd | $1.75Q | June 1, 28 | 100 | 111½ | 111½ | 111½ | 111½ | — ½ |
| 3¾ | 1⅝ | 7⅜ | 2⅜ | 24,298,850 | 10 | Middle States | .... | July 1, 23 | 10,700 | 4¼ | 4¾ | 4¼ | 4¾ | + ⅜ |
| 2¾ | 1⅛ | 5⅞ | 1½ | 5,501,370 | 10 | do ctfs | .... | | 2,500 | 3⅜ | 3⅜ | 3 | 3⅜ | + ⅛ |
| 1⅞ | 1 | 2¼ | 1¼ | (sh) 3,500,000 | N.P. | Pacific Oil | | | 5,900 | 1⅜ | 1⅜ | 1¼ | 1¼ | 0 |
| 65⅞ | 40⅛ | 53¾ | 38¼ | $48,807,400 | $ 50 | Pan American P. & T. | .... | Oct. 20, 27 | 2,200 | 42 | 43 | 40½ | 43 | + 1⅛ |
| 66⅜ | 40¼ | 54⅜ | 37¾ | 121,097,900 | 50 | do B | .... | Oct. 20, 27 | 21,100 | 42⅞ | 44½ | 42⅛ | 43⅞ | + ⅞ |
| 37⅞ | 16¾ | 28⅜ | 15½ | (sh) 400,000 | N.P. | Pan American Western B. | .... | Jan. 30, 27 | 2,800 | 16½ | 16⅞ | 16¼ | 16⅝ | + ⅜ |
| 18⅞ | 8 | 21⅜ | 11½ | (sh) 198,770 | N.P. | Panhandle P. & R. | .... | | 1,800 | 15¼ | 15⅜ | 14¾ | 15⅜ | + ¼ |
| 83 | 54 | 106¼ | 70 | $2,935,200 | $100 | do pfd | | July 2, 23 | | | | | | |
| 60¼ | 36¼ | 44⅝ | 35¼ | (sh) 2,406,796 | N.P. | Phillips Petroleum | 37½cQ | July 2, 28 | 22,000 | 38⅝ | 40⅞ | 37¾ | 40⅝ | + 2 |
| 1⅜ | ½ | 4¼ | ½ | $29,622,925 | $ 25 | Pierce Oil Corp. | | | 6,600 | 2½ | 2⅝ | 2⅜ | 2½ | 0 |
| 24 | 13½ | 30½ | 16¼ | 15,000,000 | 100 | do pfd | .... | Feb. 1, 22 | 900 | 20 | 23⅛ | 20 | 22¾ | + 4½ |
| 5½ | 2½ | 6⅜ | 3½ | (sh) 2,500,000 | N.P. | Pierce Petroleum | | | 17,400 | 4½ | 4⅝ | 4¼ | 4⅜ | — ⅛ |
| 33⅞ | 16¾ | 26⅞ | 16 | $37,450,850 | $50 | Producers & Refiners | .... | Sept. 15, 23 | 6,200 | 25¼ | 25⅞ | 24 | 25½ | + ¾ |
| 50 | 36⅞ | 46⅞ | 41 | 2,845,350 | 50 | do pfd | | May 1, 25 | | | | | | |
| 33½ | 25 | 27½ | 19 | 75,959,250 | 25 | Pure Oil Co. | 12½cQ | June 1, 28 | 15,500 | 22½ | 23¾ | 22½ | 23⅝ | + ⅞ |
| 115½ | 111⅜ | 115 | 108 | 13,000,000 | 100 | do 8% pfd | $2Q | July 2, 28 | 120 | 112¼ | 112⅝ | 111⅝ | 112½ | 0 |
| 28⅝ | 25⅜ | 50⅜ | 24 | $29,224,894 | $25 | Richfield Oil | ‡25cQ | Aug. 15, 28 | 21,500 | 47⅛ | 47⅛ | 45½ | 46¾ | + ⅜ |
| 54½ | 44¼ | 56¾ | 44⅝ | (sh) 611,303 | 13.40 | Royal Dutch, N. Y. shares | $1.879 | Aug. 3, 28 | 3,000 | 54 | 54⅜ | 54 | 54⅛ | + ⅛ |
| 47⅞ | 41⅜ | 51 | 40⅝ | (sh) 77,590 | L2 | Shell Transport & T. | $1.455 | July 23, 28 | | | | | | |
| 31¾ | 24⅝ | 31 | 23¼ | (sh) 10,000,000 | N.P. | Shell Union Oil | 35cQ | June 30, 28 | 23,500 | 26¼ | 26⅞ | 26 | 26¾ | + ¼ |
| 26⅜ | 14¼ | 24¾ | 18⅛ | $7,208,080 | $ 10 | Simms Petroleum | | Apr. 1, 27 | 4,200 | 21¼ | 25⅜ | 20½ | 20¾ | 0 |
| 22⅜ | 15 | 30¼ | 17⅜ | (sh) 4,501,915 | N.P. | Sinclair Consolidated | | May 31, 24 | 214,500 | 25⅜ | 28⅛ | 24⅝ | 27½ | + 2¼ |
| 104½ | 97 | 109½ | 102½ | $16,604,600 | $100 | do pfd | $2Q | Aug. 15, 28 | 800 | 109¼ | 109⅜ | 105½ | 106½ | — ½ |
| 37⅜ | 24½ | 34 | 25 | 27,396,590 | 25 | Skelly Oil Co. | 50cQ | June 15, 28 | 13,200 | 31½ | 32½ | 31 | 32⅛ | + ¾ |
| 60¾ | 50⅜ | 63⅞ | 53 | (sh) 13,016,434 | N.P. | S. O. California | 62½cQ | June 15, 28 | 18,500 | 58 | 58¾ | 56⅝ | 58 | + ¼ |
| 41⅜ | 35⅛ | 49 | 37¾ | $607,910,525 | $ 25 | S. O. New Jersey | ‡25cQ | June 15, 28 | 75,700 | 43⅞ | 45½ | 43⅞ | 45½ | + 1¼ |
| 34⅛ | 29¾ | 41½ | 28¾ | 427,973,275 | 25 | S. O. New York | 40cQ | June 15, 28 | 82,400 | 34 | 35⅞ | 33⅞ | 35⅜ | + 1⅜ |
| 34⅞ | 30 | 49 | 31½ | (sh) 1,206,073 | N.P. | Sun Oil | 25cQ | June 15, 28 | 11,800 | 46 | 50⅜ | 46 | 49⅞ | + 2⅞ |
| 101⅝ | 99 | 109½ | 100 | $5,000,000 | $100 | do pfd | $1.50Q | June 1, 28 | | | | | | |
| 6½ | 3⅛ | 9½ | 2½ | (sh) 1,121,368 | N.P. | Superior Oil Corp | .... | Dec. 20, 20 | 31,000 | 6⅞ | 7 | 6 | 7 | + ⅛ |
| 58 | 45 | 66⅜ | 50 | $180,480,550 | $ 25 | The Texas Corp | 75cQ | July 2, 28 | 103,600 | 60¾ | 63¾ | 59⅞ | 63⅝ | + 3⅜ |
| 18⅞ | 12 | 17½ | 12½ | 8,380,340 | 10 | Texas Pacific Coal & Oil | .... | Jan. 3, 28 | 5,500 | 14¾ | 14⅞ | 14¼ | 14¾ | 0 |
| 29⅛ | 19 | 27⅛ | 19⅝ | (sh) 2,168,410 | N.P. | Tide Water Oil Co. | 20cQ | June 30, 28 | 1,800 | 24⅛ | 25⅛ | 24 | 25⅛ | + 1⅛ |
| 90⅛ | 85 | 94½ | 87 | $20,705,200 | $100 | do 5½% pfd | $1.25Q | Aug. 15, 28 | 100 | 86¾ | 86¾ | 86¾ | 86¾ | — ¼ |
| 19⅛ | 15¾ | 20⅜ | 14¾ | (sh) 4,796,158 | N.P. | Tide Water Associated | | Aug. 1, 27 | 46,100 | 18¼ | 19½ | 18⅛ | 19 | + ⅞ |
| 90¾ | 85 | 90 | 82⅛ | $72,745,900 | $100 | do pfd | $1.50Q | July 2, 28 | 1,000 | 86 | 86⅞ | 86 | 86½ | 0 |
| 10⅜ | 3¾ | 10½ | 7 | (sh) 3,742,029 | N.P. | Transcontinental Oil | .... | | 18,000 | 7⅞ | 8⅛ | 7½ | 8⅛ | + ¼ |
| 56½ | 39⅝ | 57 | 42¾ | $40,791,225 | $ 25 | Union Oil of California | 50cQ | Aug. 10, 28 | 18,600 | 50½ | 53½ | 50 | 52¼ | + 1½ |
| 127½ | 94 | 128⅛ | 115½ | 30,844,000 | 100 | Union Tank Car Co. | $1.25Q | June 1, 28 | 500 | 116¾ | 118 | 116¾ | 117⅜ | + 2½ |
| 34½ | 24½ | 38⅜ | 26 | (sh) 310,956 | N.P. | Warner Quinlan | 50cQ | July 2, 28 | 11,700 | 38¼ | 38⅜ | 37¼ | 38⅜ | + ½ |
| 27½ | 20 | 26⅜ | 20⅛ | (sh) 490,000 | N.P. | White Eagle Oil & Refining | 25cQ | July 20, 28 | 31,800 | 24¼ | *26⅜ | 24¼ | 26 | — 2 |

*New High †New Low ‡Also extras s-Stock Total Sales 1,432,520

# Pittsburgh Stock Exchange

| 1927 High | 1927 Low | 1928 High | 1928 Low | Par Value | Stocks | Transactions Week Ended Aug. 3 Sales | First | High | Low | Last | Change |
|---|---|---|---|---|---|---|---|---|---|---|---|
| .... | .... | 4 | 2½ | N.P. | Ark. Nat. Gas (new).. | 2,350 | 2¾ | 2⅞ | 2¾ | 2¾ | — ⅛ |
| .... | .... | 7½ | 6¾ | N.P. | do pfd. | 3,987 | 7¼ | 7¼ | 7⅛ | 7¼ | + ⅛ |
| 98⅝ | 80⅞ | 114½ | 90¾ | 100 | Columbia Gas. | | | | | | |
| 107¾ | 100 | 108½ | 108 | 100 | do pfd. | | | | | | |
| 15 | 7½ | 10 | 7 | 10 | Devonian Oil. | | | | | | |
| .... | .... | 15 | 9¾ | 10 | Dixie Gas & Util. | | | | | | |
| .... | .... | 95 | 85 | 100 | do pfd. | | | | | | |
| 117½ | 115 | 116 | 115 | 100 | Duquesne Light pfd. | | | | | | |
| .... | .... | 85 | 80½ | 100 | Fayette County Gas. | | | | | | |
| 12¼ | 6 | 22 | 12 | N.P. | Houston Gulf Gas. | | | | | | |
| 59¼ | 37¼ | 58 | 48⅝ | $ 25 | Lone Star Gas. | 2,210 | 52⅞ | 53 | 52 | 52¼ | — ⅝ |
| .... | .... | 36½ | 36 | 25 | Petroleum Exploration | | | | | | |
| 3⅞ | 3 | 4 | 3¼ | 5 | Pittsburgh Oil & Gas. | | | | | | |
| 8 | 5½ | 7¼ | 6 | 10 | Salt Creek Cons. | | | | | | |
| 26½ | 17 | 22 | 16¾ | 10 | Tidal Osage | | | | | | |
| 43 | 33 | 33⅝ | 30½ | N.P. | Waverly Oil Wks. A | 75 | 33 | 33 | 33 | 33 | 0 |
| .... | .... | 19 | 17½ | $ 25 | Wiser Oil. | | | | | | |

# Pittsburgh Curb Exchange

| 1927 High | 1927 Low | 1928 High | 1928 Low | Par Value | Stocks | Transactions Week Ended Aug. 3 Sales | First | High | Low | Last | Change |
|---|---|---|---|---|---|---|---|---|---|---|---|
| .... | .... | 10¼ | 9 | 10 | Ark. Nat. Gas (old).. | | | | | | |
| 95 | 88 | 132 | 120 | 25 | Gulf Oil. | | | | | | |
| .... | .... | 115 | 115 | .... | Houston Gulf Gas pfd. | | | | | | |
| 10¾ | 5½ | 9 | 5½ | 25 | Leonard Oil & Dev. | | | | | | |
| 2.70 | .30 | 1.00 | .50 | 10 | Omar Oil & Gas. | | | | | | |
| .... | .... | .40 | .20 | .... | Phoenix Oil. | 1,000 | .35 | .35 | .35 | .35 | — .05 |
| 2¼ | 1¾ | .... | .... | 5 | Pittsburgh Oil Dev. | | | | | | |
| 31 | 19 | 22 | 16¾ | 5 | Plymouth Oil. | 1,200 | 18 | 18 | 18 | 18 | — 1 |
| 6 | 5 | 4¾ | 4 | 5 | States Oil. | | | | | | |
| 3¼ | 1½ | 4½ | 2¼ | 1 | Texon Oil & Land. | | | | | | |
| 23¾ | 18 | 18 | 15 | 10 | Tidal Osage Non-vgt. | | | | | | |

*New High †New Low x Ex Dividend

# Cleveland Stock Market

| August 3 | Par Value | Bid | Asked | Last Sale |
|---|---|---|---|---|
| Canfield | 100 | 110 | ... | 115 |
| do pfd | 100 | 100 | ... | 101 |
| Fred G. Clark | 10 | 3½ | 5 | 3½ |
| National Refining | 25 | 34⅜ | 37½ | 35 |
| do pfd | 100 | 130 | 135 | 131 |
| Paragon Refining Co. | 25 | 15⅞ | 16 | 15⅜ |
| do pfd | 100 | ... | 128 | 125 |
| do ct'fs of dep | ... | 15½ | ... | 16 |

### Illinois Marketers to Meet

SPRINGFIELD, Aug. 6.—The Illinois Petroleum Marketers Association will hold its annual summer frolic at the Soengata Country Club, Galesburg, Aug. 16, says G. A. Primm, secretary.

There will be a business session at ten in the morning, a fried chicken dinner at noon and recreation in the afternoon. Ladies are invited and there will be special entertainment for them.

# Standard Oil Stocks on New York Curb

| 1927 High | 1927 Low | 1928 High | 1928 Low | Outstanding Capital | Par Value | Stocks | Div. Rate | Last Paid | Transactions Week Ended Aug. 4 Sales | First | High | Low | Last | Change |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 21⅜ | 17⅜ | 22⅜ | 17 | £ 4,126,460 | £ 1 | Anglo-American Oil | 24.4c | June 6, 28 | 200 | 18 | 18¼ | 18 | 18¼ | + ¼ |
| 21½ | 17⅜ | 20½ | 16⅜ | | £ 1 | do cts. non-voting | ..... | ..... | 300 | 17⅜ | 17⅜ | 17⅜ | 17⅜ | + ⅜ |
| 3¾ | ¾ | 5 | 1¼ | (sh) 500,000 | N.P. | Atlantic Lobos | ..... | ..... | 300 | 2⅜ | 2⅜ | 2½ | 2½ | 0 |
| 6½ | 2½ | 9¾ | 3¼ | $ 10,000,000 | $ 50 | do pfd | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 69 | 50 | 56 | 49 | 1,000,000 | 25 | Borne Scrymser | ‡$1S.A. | Apr. 16, 28 | ..... | ..... | ..... | ..... | ..... | ..... |
| 60 | 45 | 76 | 58 | 10,000,000 | 50 | Buckeye Pipe Line | ‡$1Q | June 15, 28 | 200 | 63 | 63 | 62 | 62 | — 1⅞ |
| 126 | 76½ | 161 | 117¼ | 3,000,000 | 25 | Chesebrough Mfg | $1Q | June 30, 28 | 1,100 | 142 | 150¾ | 142 | 150 | + ¼ |
| 22⅜ | 16¼ | 23 | 16 | 36,123,350 | 10 | Continental Oil | ..... | Dec. 15, 27 | 6,800 | 16½ | 17⅞ | 16 | 17⅛ | + 1⅛ |
| 137 | 89 | 114 | 88 | 3,000,000 | 100 | Cumberland Pipe Line | ‡$2Q | June 15, 28 | 200 | 101 | 103½ | 103½ | 103½ | + 3½ |
| 68½ | 47 | 88 | 64¼ | 5,000,000 | 100 | Eureka Pipe Line | $1Q | Aug. 1, 28 | ..... | ..... | ..... | ..... | ..... | ..... |
| 13½ | 3½ | 13 | 5 | 16,000,000 | 100 | Galena Signal Oil | ..... | June 30, 25 | 500 | 10 | 11½ | 10 | 11⅛ | + 1⅜ |
| 59¾ | 23 | 87¾ | 27 | 4,000,000 | 100 | do new pfd | ..... | June 30, 26 | 820 | 72½ | *87¾ | 72½ | 80 | 0 |
| 50⅛ | 35⅛ | 89⅜ | 35 | 2,000,000 | 100 | do old pfd | ..... | June 30, 26 | 80 | 77 | 80 | 77 | 80 | + 4 |
| 68½ | 54 | 84¾ | 60 | 73,685,700 | 25 | Humble Oil & Refining | ‡30cQ | July 1, 28 | 8,000 | 80⅝ | 83¼ | 81 | 82¾ | + 2¾ |
| 182 | 123¾ | 245 | 176½ | 20,000,000 | 100 | Illinois Pipe Line | $6S.A. | June 15, 28 | 300 | 207¼ | 208 | 206¼ | 207¼ | + 1 |
| 64¾ | 37¾ | 71⅞ | 56¾ | (sh) 6,458,267 | N.P. | Imperial of Canada | ‡25cQ | June 1, 28 | 900 | 66½ | 68¾ | 66¼ | 68¾ | + 3⅜ |
| 94½ | 61 | 89½ | 74⅞ | $5,000,000 | $ 50 | Indiana Pipe Line | ‡$1Q | Aug. 15, 28 | 200 | 80¼ | 83 | 80¼ | 84 | — 1⅜ |
| 39 | 28¾ | 45¼ | 35 | (sh)7,123,544 | N.P | International Petroleum | 25c | June 30, 28 | 1,900 | 38⅞ | 39½ | 38⅝ | 39¼ | + ¼ |
| 24 | 13¼ | 32⅜ | 19⅜ | $6,363,350 | 12.50 | National Transit Co | ‡25cQ | June 15, 28 | 800 | 21 | 21½ | 20¼ | 21½ | + ⅝ |
| 44⅜ | 31¼ | 59⅛ | 37⅜ | 5,000,000 | 100 | New York Transit | ..... | July 15, 26 | 50 | 53 | 53 | 53 | 53 | — ¼ |
| 100 | 70 | 125 | 94 | 4,000,000 | 100 | Northern Pipe Line | $3S.A. | July 2, 28 | ..... | ..... | ..... | ..... | ..... | ..... |
| 67⅜ | 52 | 68¼ | 58 | 60,000,000 | 25 | Ohio Oil Co | ‡50cQ | June 15, 28 | 2,900 | 63 | 64½ | 63 | 64½ | + 2 |
| 39 | 12 | 84 | 28 | 10,000,000 | 25 | Penn Mex. Fuel | $1.25 | May 31, 28 | 1,000 | 41 | 41 | 40 | 40½ | + ½ |
| 55⅛ | 45⅝ | 56 | 47½ | 60,479,600 | 25 | Prairie Oil & Gas | ..... | Aug. 31, 27 | 7,900 | 48½ | 48½ | 47 | 48½ | 0 |
| 190 | 132 | 223 | 172 | 81,000,000 | 100 | Prairie Pipe Line | $3.50Q | July 31, 28 | 7,800 | 201 | 200 | †172 | 193 | — 7 |
| 201½ | 175½ | 186 | 167 | 4,000,000 | 100 | Solar Refining | ‡$5S.A. | June 20, 28 | ..... | ..... | ..... | ..... | ..... | ..... |
| 27¾ | 15½ | 35⅞ | 12 | 5,000,000 | 50 | Southern Pipe Line | $2 | Dec. 1, 27 | ..... | ..... | ..... | ..... | ..... | ..... |
| 41¾ | 35 | 53 | 36¾ | 20,000,000 | 25 | South Penn Oil | 50cQ | Mar. 31, 28 | 1,100 | 45 | 45 | 44 | 45 | + ½ |
| 83 | 55½ | 100¾ | 70 | 3,500,000 | 100 | South West Pa. Pipe Lines | ‡$1Q | July 2, 28 | ..... | ..... | ..... | ..... | ..... | ..... |
| 81½ | 64⅝ | 83⅜ | 70⅞ | 230,788,513 | 25 | S. O. Indiana | ‡62½cQ | June 15, 28 | 18,400 | 75½ | 77 | 75⅜ | 77 | + 1¼ |
| 20⅞ | 14⅜ | 27⅜ | 15 | 8,000,000 | 25 | S. O. Kansas | ..... | June 16, 24 | 31,900 | 22⅞ | 24½ | 23 | 24 | + 1⅛ |
| 130 | 111½ | 136½ | 122¼ | 17,103,011 | 25 | S. O. Kentucky | $1Q | June 30, 28 | 1,200 | 129½ | 130⅜ | 129 | 129 | + 1 |
| 49½ | 40 | 45⅞ | 39⅞ | 4,601,100 | 25 | S. O. Nebraska | 62cQ | June 20, 28 | 1,000 | 40⅝ | 41¾ | 40⅝ | 41¾ | + 1⅛ |
| 87½ | 72 | 79½ | 71 | 14,000,000 | 25 | S. O. Ohio | 62½cQ | Apr. 2, 28 | 300 | 73½ | 72⅞ | 73½ | 73½ | 0 |
| 122 | 117¼ | 125 | 117 | 7,000,000 | 100 | do pfd | $1.75Q | June 1, 28 | 10 | 121 | 120½ | 120½ | 120½ | — ½ |
| 21 | 14½ | 26 | 16 | 30,844,000 | 25 | Swan Finch Co | 30cQ | June 30, 28 | 100 | 22 | 22½ | 22 | 22½ | + 1¼ |
| ..... | ..... | 87⅛ | 72 | 124,941,600 | 25 | Vacuum Oil | 75cQ | June 20, 28 | 13,200 | 76⅞ | 81¼ | 76⅞ | 81¼ | + 5⅜ |

•New high †New low xEx dividend ‡Also extras.

# New York Bonds

Week Ending Aug. 3

| | High | Low | Last | Ch'ge |
|---|---|---|---|---|
| Assoc. Oil 6s '35 | 102¼ | 102¼ | 102¼ | 0 |
| Associated Oil gold 6s | 102¼ | 102¼ | 102¼ | — 5/8 |
| Atlantic Refining deb 5s | 101⅛ | 100½ | 101⅛ | + 3/8 |
| Barnsdall Corp. 6s | 101¾ | 100⅛ | 101⅛ | +1⅛ |
| Barnsdall Corp. 8s ex-war | 91¼ | 91 | 91¼ | + ¼ |
| Cal. Pet. 5s | 98¾ | 98¾ | 98¾ | — ¼ |
| Cal. Pet. 5½s | 101⅞ | 101⅝ | 101⅞ | 0 |
| General Asphalt 6s | 107½ | 107¼ | 107½ | — ½ |
| General Petroleum 5s | 101 | 100½ | 100½ | — ½ |
| Humble Oil & Refg. 5½s | 101¾ | 101¼ | 101¼ | — 5/8 |
| Humble Oil & Refg. 5s | 100¼ | 99¾ | 99¾ | — 5/8 |
| Mid. Cont. Pet. 6½s | 105¼ | 104¾ | 105 | — ¼ |
| Pan Amer. P & T 7s | 105 | 104½ | 105 | + ½ |
| Pam Amer. P & T 6s | 102¾ | 102½ | 102¾ | + ¼ |
| Pan Amer. P & T 6s | 95½ | 95 | 95 | — ½ |
| Pure Oil 5½s | 98⅜ | 98 | 98⅜ | + ⅜ |
| Shell Union Oil 5s | 96¾ | 96 | 96½ | + ½ |
| Simms Pet. 6s | 101⅛ | 101 | 101 | 0 |
| Sinclair Con. Oil 7s | 102 | 100½ | 101¾ | — ¼ |
| Sinclair Con. Oil 6½s | 99⅜ | 98½ | 99 | 0 |
| Sinclair Con. Oil 6s D | 99 | 98½ | 99 | + ¼ |
| Sinclair Crude 5½s | 97½ | 97 | 97½ | + ⅛ |
| Sinclair Pipeline 5s | 94 | 93 | 94 | +1 |
| Skelly Oil 5½s | 93 | 92¼ | 92¼ | — ¼ |
| S. O. N. Y. 4½s | 96 | 94¾ | 94¾ | — ¼ |
| S. O. N. J. deb. 5s | 102⅝ | 102⅜ | 102⅝ | + ⅛ |
| Union Oil of Calif. 6s A | 109½ | 109 | 109½ | + ⅜ |
| Union Oil of Calif. 5s C | 99 | 97½ | 98½ | + ¾ |
| White Eagle Oil 5½s | 96⅜ | 96⅜ | 96⅜ | 0 |

# New York Curb Bonds

Week Ending August 3

| | High | Low | Last | Ch'ge |
|---|---|---|---|---|
| Beacon Oil 6s '36 | 101 | 100 | 101 | +2 |
| Cities Service 5s '66 | 95¾ | 95⅜ | 95⅜ | — ⅛ |
| Cities Service 6s '66 | 103¾ | 103¾ | 103¾ | 0 |
| Cities Serv. G 5½s '42 | 94½ | 93¾ | 94¼ | + ½ |
| Cont. Oil 5¼s '37 | 96¼ | 96 | 96 | — ⅛ |
| Empire O & R. 5½s '42 | 93⅛ | 93 | 93 | 0 |
| Galena Oil 7s '30 | 101½ | 99½ | 100¼ | +1¼ |
| Gulf Oil 5s '37 | 99⅞ | 99½ | 99¾ | — ¼ |
| Gulf Oil 5s '47 | 100 | 99¾ | 100 | + ¼ |
| Independent Oil 6s '39 | 101 | 100½ | 100½ | + ½ |
| Richfield Oil 6s '41 | 133 | 132 | 135 | — ¼ |
| Sun Oil 5½s '39 | 104⅞ | 100½ | 100½ | — ¼ |
| Trans. Cont. Oil 7s '30 | 105¾ | 105½ | 105⅝ | + ⅛ |
| Warner Quinlan 6s '42 | 109½ | 107 | 107 | —2⅞ |

# Independent Oils on New York Curb

| 1927 High | 1927 Low | 1928 High | 1928 Low | Par Value | Stocks | Transactions Week Ended Aug. 4 Sales | First | High | Low | Last | Change |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2⅞ | .55 | 1⅛ | .65 | $ 5 | Amer. Con. Oilfields | 13,500 | .71 | .78 | .70 | .71 | 0 |
| 7½ | 2¾ | 6⅝ | 3⅛ | N.P. | Amer. Maracaibo | 500 | 4⅝ | 4⅞ | 4½ | 4½ | — ⅛ |
| 2¾ | 1 | 4 | 2¼ | $ 10 | Argo Oil | 100 | 2⅜ | 2½ | 2½ | 2½ | — ¼ |
| 9¾ | 6¾ | 10¼ | 7⅜ | 10 | Arkansas Nat. Gas | ..... | ..... | ..... | ..... | ..... | ..... |
| ..... | ..... | ..... | ..... | ..... | Beacon Oil | ..... | ..... | ..... | ..... | ..... | ..... |
| 40 | 20½ | 40½ | 32¾ | N.P. | British American | 100 | 38 | 38 | 38 | 38 | + ⅜ |
| 28¼ | 15½ | 23⅞ | 16¼ | 25c | Carib Syndicate N | 3,800 | 16 | 16½ | 15⅛ | 15⅜ | — ⅞ |
| ..... | ..... | ..... | ..... | ..... | do ctfs. of dep | ..... | ..... | ..... | ..... | ..... | ..... |
| 58¾ | 40¼ | 71¼ | 54 | $ 20 | Cities Service | 11,500 | 65¾ | 66⅛ | 65 | 65½ | — ½ |
| 95⅜ | 87 | 103½ | 94½ | 100 | do pfd | 1,500 | 99⅜ | 99½ | 99 | 99⅜ | 0 |
| 8⅞ | 7⅜ | 9⅝ | 8⅞ | 10 | do pfd. B | 100 | 9⅜ | 9⅜ | 9⅜ | 9⅜ | — ⅛ |
| 29¼ | 22½ | 34⅝ | 28¼ | 10 | do banker's shares | ..... | ..... | ..... | ..... | ..... | ..... |
| 3⅞ | 1⅝ | 2¼ | 1⅛ | 1 | Colombia Syndicate | 9,800 | 1⅜ | 1⅜ | 1⅛ | 1⅜ | 0 |
| 9¾ | 6⅜ | 8⅛ | 6⅜ | 10 | Consolidated Royal | ..... | ..... | ..... | ..... | ..... | ..... |
| 14⅞ | 9½ | 17½ | 10 | N.P. | Creole Syndicate | 16,900 | 12¾ | 13¼ | 12½ | 13⅛ | + ⅜ |
| 3 | .50 | 3¼ | .76 | N.P. | Crown Central | 200 | 1⅜ | 1⅜ | 1⅜ | 1⅜ | + ⅛ |
| 12 | 4 | 30⅛ | 8⅛ | N.P. | Darby Petroleum | 1,900 | 20⅛ | 22⅛ | 20⅛ | 22⅛ | + 2⅛ |
| 11½ | 4 | 13½ | 7⅞ | .... | do trust ctfs | ..... | ..... | ..... | ..... | ..... | ..... |
| 2½ | .74 | 22 | 1 | N.P. | Derby Oil & Refining | ..... | ..... | ..... | ..... | ..... | ..... |
| 16¾ | 4 | 13 | 7½ | N.P. | do pfd | 400 | 13 | *13 | 12½ | 13 | — ⅛ |
| 3¾ | 1 | 2 | 1 | N.P. | Gibson Oil | ..... | ..... | ..... | ..... | ..... | ..... |
| 2 | .40 | .53 | .15 | N.P. | Gilliland ctfs | ..... | ..... | ..... | ..... | ..... | ..... |
| 118 | 86¼ | 148½ | 101⅛ | $ 25 | Gulf Oil Corp | 6,700 | 124½ | 130⅞ | 124½ | 128¼ | + 3¼ |
| 2½ | .80 | 7⅞ | 1 | 10 | Intercontinent Pet | 4,400 | 1⅛ | 1⅛ | 1 | 1 | 0 |
| 2¼ | 1⅛ | 3 | 1¼ | N.P. | Kirby Petroleum | ..... | ..... | ..... | ..... | ..... | ..... |
| 10⅞ | 5⅛ | 9⅜ | 5½ | N.P. | Leonard Oil & Dev | 100 | 6⅜ | 6½ | 6¼ | 6⅜ | — ⅛ |
| 27½ | 20 | 32⅜ | 20 | N.P. | Lion Oil & Refg | 500 | 27 | 27½ | 26½ | 27½ | — ⅝ |
| 59⅜ | 37 | 57 | 48⅝ | $ 25 | Lone Star Gas | 200 | 52⅞ | 52⅞ | 51⅝ | 52⅜ | — ⅜ |
| 2⅞ | .80 | 1⅞ | .86 | 1 | Magdalena Synd | 1,800 | 93 | 95 | 87 | 90 | — 1 |
| 21½ | 20⅞ | 22⅜ | 22⅛ | N.P. | Manhattan Oil | ..... | ..... | ..... | ..... | ..... | ..... |
| 52 | 12 | 45 | 36½ | N.P. | Margay Oil | ..... | ..... | ..... | ..... | ..... | ..... |
| 3 | 1½ | 40½ | 40½ | $ 10 | Mexican-Panuco | ..... | ..... | ..... | ..... | ..... | ..... |
| 12⅛ | 5 | 8 | 4 | N.P. | Mexico-Ohio Oil | 1,500 | 4½ | 5 | 4¼ | 4¼ | — ¼ |
| 1½ | 1 | 1½ | .76 | $ 1 | Mountain & Gulf | 200 | 82 | 81 | 81 | 81 | — 1 |
| 29¼ | 22¾ | 28⅝ | 22¾ | 10 | Mountain Producers | 1,000 | 23 | 23¼ | 22½ | 23¼ | + ¼ |
| 5⅞ | 4⅝ | 5⅝ | 4¾ | 5 | New Bradford | ..... | ..... | ..... | ..... | ..... | ..... |
| 6¼ | 4 | 5½ | 3⅝ | 10 | New England Fuel | ..... | ..... | ..... | ..... | ..... | ..... |
| 16 | 9¼ | 11⅜ | 7⅛ | 1 | New Mex. & Ariz | 1,000 | 7⅛ | 8¼ | 7¾ | 8¼ | + 1⅛ |
| 13⅞ | 9 | 15½ | 11½ | 25 | New York Oil | ..... | ..... | ..... | ..... | ..... | ..... |
| 12¾ | 9½ | 13¼ | 10¾ | N.P. | North Cent. Texas | 400 | 12 | 12 | 11½ | 11½ | — 1⅛ |
| 23⅞ | 21¼ | ... | ... | ... | Okla. Nat. Gas ctfs. | ..... | ..... | ..... | ..... | ..... | ..... |
| 9⅜ | 3¼ | 6 | 2¼ | N.P. | Pandem | 1,900 | 2½ | 2½ | 2⅛ | 2½ | 0 |
| 12⅛ | 7 | 15⅝ | 8½ | N.P. | Panapec Oil | 7,000 | 12¾ | 14⅜ | 12½ | 13⅞ | + 1⅛ |
| 9 | 7⅝ | 15½ | 10⅝ | $ 25 | Paragon Refg | ..... | ..... | ..... | ..... | ..... | ..... |
| .37 | .25 | 9 | 4 | N.P. | Peer Oil Corp | ..... | ..... | ..... | ..... | ..... | ..... |
| 13½ | 5⅛ | 7¾ | 5⅛ | 10 | Pennok Oil | 600 | 6 | 6 | 5¾ | 5¾ | 0 |
| ..... | ..... | 4⅛ | 3⅜ | 5 | Pittsburgh Oil & Gas | ..... | ..... | ..... | ..... | ..... | ..... |
| 24⅜ | 7 | 14½ | 8 | 25 | Red Bank Oil | ..... | ..... | ..... | ..... | ..... | ..... |
| 15½ | 3½ | 12⅞ | 4⅛ | N.P. | Reiter-Foster | 2,500 | 7¾ | 8 | 7½ | 8 | + ⅛ |
| 28⅜ | 15 | 31½ | 22 | $ 25 | Richfield Oil pfd | 400 | 24 | 24 | 23½ | 24 | + 1 |
| 7 | 4⅛ | 9⅞ | 4⅝ | N.P. | Ryan Consolidated | 100 | 5⅞ | 5⅞ | 5⅞ | 5⅞ | + ⅛ |
| 8 | 5¼ | 7¼ | 5¾ | $ 10 | Salt Creek Cons | ..... | ..... | ..... | ..... | ..... | ..... |
| 35½ | 27¼ | 35 | 27 | 10 | Salt Creek Prod | 800 | 27⅞ | 28 | 27⅜ | 27¾ | 0 |
| 7 | 1¼ | 3½ | 1 | 5 | Savoy Oil | 100 | 1¼ | 1¼ | 1¼ | 1¼ | + ⅛ |
| 26½ | 17 | 22⅞ | 13 | 10 | Tidal Osage | 100 | 18½ | 19½ | 18½ | 19½ | + 1 |
| 23¾ | 15 | 21¼ | 13½ | 10 | do non-voting | 1,000 | 18¾ | 18⅞ | 18⅜ | 18⅝ | + ⅝ |
| 92 | 63½ | 87 | 75 | 100 | Transcontinental pfd | ..... | ..... | ..... | ..... | ..... | ..... |
| 23¼ | 7 | 50 | 18 | 10 | Venezuela-Mexico | ..... | ..... | ..... | ..... | ..... | ..... |
| 7⅜ | 4¼ | 6⅜ | 4⅞ | 5 | Venezuelan Petrol | 2,200 | 5 | 5¼ | 5 | 5¼ | + ⅛ |
| 32⅜ | 19½ | 25 | 17½ | N.P. | Wilcox Oil & Gas | 600 | 18⅞ | 19½ | 18½ | 18⅝ | — ⅛ |
| 8 | 4¾ | 8¼ | 5¾ | $ 1 | Woodley Petroleum | 100 | 5⅞ | 5⅞ | 5⅞ | 5⅞ | — ⅛ |
| 6 | 1¾ | 8⅜ | 2⅛ | 25 | Y Oil & Gas (new) | 1,100 | 6¾ | 7 | 4⅞ | 4⅞ | — 2⅛ |

•New High †New Low xEx Dividend

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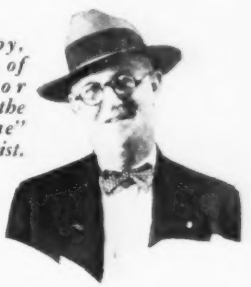

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